Texas Commission on Environmental Quality

Waste Permits Division Correspondence Cover Sheet

Date: 07/2025
Facility Name: City of Meadow Landfill
Permit or Registration No.: MSW-2293C

Nature of Correspondence:
☐ Initial/New
☒ Response/Revision to TCEQ Tracking No.: 30060987 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☒ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

REPUBLIC SERVICES

Sustainability in Action

July 16, 2025

Mr. Jason Baiocchi
Project Manager
MC-124
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Re: Response to Technical Second Notice of Deficiency Letter
City of Meadow Landfill
Meadow, Terry County, Texas
Municipal Solid Waste Permit Number: 2293C
Tracking No. 30060987; RN101570976/CN606025534
Major Permit Amendment

Dear Mr. Baiocchi:

On behalf of Meadow Landfill, LLC, please find enclosed one original and three copies of the replacement pages for the referenced permit amendment application. The attached replacement pages were developed to incorporate comments included in your email dated May 20, 2025.

The enclosed table contains each comment identified by the TCEQ and a response to each below the comment.

We appreciate your review of this permit application and look forward to your comments. In the meantime, if you have any questions, please do not hesitate to contact me by phone (325-518-7397) or email [redacted]

Sincerely,

Brian Danko

Brian Danko
Environmental Manager

Copies submitted: Attachment 1: NOD1 Table
Attachment 2: Replacement Pages (Redline/Strikeout Version)
Attachment 3: Replacement Pages (Clean Version)

cc: Duncan Norton, Lloyd Gosselink Rochelle & Townsend, P.C.
Kyle D. Gould, P.E., Weaver Consultants Group, LLC

ATTACHMENT 1

NOD 1 TABLE

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
1	12	Part I/II, Appendix I/IIC, Section 2	330.543(a)	Add back in the language prohibiting disposal activities within "25 feet of the centerline of any easement". **Response:** Appendix I/IIC, Section 2 has been revised to reincorporate the requested language.
2	12	TCEQ-20873 Form, Section B	330.57(d)	The estimated population served on the Waste Acceptance Form (323K+) is vastly larger than the estimate used for the site life calculations (181K+). Confirm which estimate is true and recalculate the site life estimate if the correct population is 323K+. **Response:** The estimated population served on the Waste Acceptance Form has been revised to align with the site life calculations.
3	12	Part III, Appendix IIIK, Section 2.1	330.57(d)	Clarify if earth electrical resistivity surveys will be conducted. **Response:** Earth electrical resistivity surveys were not used to reduce the number of subsurface borings, as allowed under 30 TAC §330.63(e)(4)(F). Therefore, these surveys are not applicable to the site and are not planned to be conducted during the post-closure care period. As such, no language regarding earth electrical resistivity surveys is necessary in Section 2.1 of the Post-Closure Care Plan.
4	12	Part III, Appendix IIIJ, Figure IIIJ-2	330.57(d)	Clarify if the first vertical line on the chart represents Day 0 or Day 30. **Response:** Figure IIIJ-2 has been revised to clearly distinguish the lines corresponding to each day.
5	12	Part IV, Appendix IVD, Drawing 4	330.57(d)	Modify the drawing to show the bulking storage area within the containment berm, as was done with Option A. **Response:** Drawing 4 – Option B Liquid Waste Bulking Facility Plan has been revised to depict the bulking storage area within the containment berm. The secondary containment calculations have also been revised to account for the increased storage area footprint.
6	12	Part IV, Section 4.2.1	330.57(d)	The response to Comment 33 indicates that source-separated recyclable materials received at the Citizen Convenience Center will be stockpiled temporarily for eventual transport to an off-site recycling facility. Incorporate this understanding into the application language discussing Convenience Center operations. **Response:** The language from Comment 33 NOD 1 has been incorporated into Part IV, Section 4.2.1 Unloading Areas.

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7	12	Part IV, Section 7.7.3	330.57(d)	The application indicates that a water truck or storage tank will be the primary sources for firefighting purposes, with stormwater detention ponds used as a potential backup source. Some potential future sources of water were also discussed. Clarify how the facility currently intends to obtain its water supply for the primary and backup sources (e.g. trucked in from offsite sources, waterline to city main, etc.) **Response:** In the previous comment response, language was added to Section 7.7.3 indicating that Republic may contract with the City of Meadow for water obtained from the fire hydrant system installed and operated within the city or installed at the site (future); obtain water from an adjacent landowner's existing well; or install a dedicated potable or non-potable well in the future for operational water.
8	12	Part I/II, Appendix I/IIA, Figure I/IIA.1	330.57(d)	The coordinates presented on the figure seem different from the benchmark location when plotted on a map. Note that the site benchmark must be located within the proposed permit boundary. Provide the site benchmark coordinates in latitude and longitude format so that we may confirm the location. **Response:** The site benchmark information table on Drawing I/IIA.1 Site Plan has been revised to include the latitude and longitude of the site benchmark.
9	12	Part IV, Section 6.2	330.57(d)	List the other types of waste under the "other" category that may be exempt from random inspections. **Response:** Part IV, Section 6.2 – Load Inspection Procedures has been revised to more clearly state that loads verified through generator profiling to be free of hazardous waste and PCBs will be excluded from random inspections.
10	12	Part III, Appendix IIIL, Table 1	330.57(d)	The final cover infiltration and erosion layer thicknesses specified at the top of the table are either non-existent or dozens to hundreds of feet thick. Verify and correct, if necessary. Explain why the Side Slope Cover is not used in the current closure costs. **Response:** Appendix IIIL, Table 1 – Closure Cost has been revised to correct the infiltration and erosion layer thickness for the composite and trench area. Side Slope Cover is not used in the current closure costs because the current area is trench fill, which does not have a separate sideslope liner system.
11	12	Part III, Appendix IIIL, Table 2	330.57(d)	Identify the unit acronym "EA". **Response:** Appendix IIIL, Table 2 – Postclosure Care Cost has been revised to identify the unit

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				acronym EA as each in Note 1.
12	13	Part III, Appendix IIIL, Form 20721	330.57(d)	1. Explain why the costs for mobilization cannot be articulated. Table 1 indicates the mobilization costs and engineering administrative costs each are 5% but does not indicate of what amount it is 5%. 2. Part III, Section 2.2 – Verify and correct. It is assumed that this value should be the sum of line items 2.2.2a, 2.2.1g, and 2.2.1d on Table 1. 3. Part III, Section 2.10 – Does not match the amount shown on Table 1. Verify and correct. 4. Part IV, Section D – Construction Subtotal does not match Table 1. **Response:** 1. Appendix IIIL, Table 1 – Closure Cost has been revised to specify that the mobilization cost is calculated as 5% of Line Item 1.9 Engineering Costs Subtotal. Line Item 2.1 Mobilization of Personnel and Equipment has been updated to reflect this calculation. Form 20721 has also been revised to incorporate the mobilization cost. Accordingly, the construction cost subtotal, sum of closure cost subtotals, contingency, contract performance bond, third part administration and project management costs, and overall closure cost in both Table 1 – Closure Cost and Form 20721 have been adjusted to reflect this update. 2. Section 2.2 of Form 20721 has been revised to reflect the sum of line items 2.2.2a Infiltration layer – Compacted Clay, 2.2.1g Erosion Layer, and 2.2.1h Vegetation. 3. Section 2.10 of Form 20721 has been revised to match the amount shown on Table 1 - Closure Cost. 4. Part IV, Section D on Form 20721 has been updated to match the amount should on Table 1 – Closure Cost.
13	14	Part III, Appendix IIIL, Form 20723	330.57(d)	The post-closure component costs presented in Part IV are larger than those presented on the following Table 1 and on Table 2 (page IIIL-12). Verify and correct. **Response:** The post-closure cost presented in Part IV of Form 20723 included the cost for the 30 year post-closure period. These costs have been revised to match the costs provided in Table 2 – Post-Closure Care Cost.
14	171	Part I/II, Figure I/II-4.2A	330.61(c)(1)	Multiple points of data are needed for a more confident determination of prevailing wind direction. Provide two more wind roses from the next nearest meteorological stations apart from Levelland, as well as the original wind rose based on data from the Lubbock airport. Provide each wind rose on a separate page. **Response:** Figures I/II-4.2B and I/II-4.2C have been added to depict wind roses from Lubbock and Denver City airports.

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
15	272	Part III, Section 2.2.1	330.63(b)(2)(A)	Consistent with the first NOD comment 127 address in the SOP the operating procedures for areas where the recyclable materials are stockpiled (concrete, asphalt and soil). **Response:** Stockpiling of reusable materials (e.g., concrete, asphalt and soil) has been removed from the permit application. Applicable sections of the application have been revised to reflect this change, as noted in Comment Responses 16 and 31.
16	275	Part III, Section 2.2.4, Part III, Sections 3.3, 3.4, and 3.5, and Appendix IIIJ, Section 3	330.63(b)(2)(D) and 330.459(a)	1. Consistent with the first NOD comment 128 address the generalized process design and working plan of the facility. Include necessary discussions/operating procedures on accepting and handling the waste materials intended for on-site recycling use. It is noted that Section 3.5 of Appendix IIIJ was revised to discuss how the recyclables will be disposed of or recycled when the Citizens Convenience Center is closed. 2. Consistent with the first NOD comment 161(2) provide the timeline of closure for the staging/storage/processing operations under Part III, Sections 3.3, 3.4, and 3.5. 3. Consistent with the first NOD comment 161(3) revise Appendix IIIJ, Section 3 to address closure measures for the staging/storage/processing operations. **Response:** 1. As noted in the Comment 15 Response, stockpiling of reusable materials (e.g., concrete, asphalt and soil) has been removed from the permit application. Figure III-1 has been revised to remove reference to the reusable materials stockpiles. Section 2.2.4 of Part III has been revised to add reference for the Citizen's Convenience Center and Liquid Waste Bulking Facility. Additional text describing the operation of the Citizens Convenience Center has been added to Section 4.2.1 for this response. 2. Appendix IIIJ, Section 4.1 has been expanded to include additional language addressing the closure activities and timelines for the activities described in Appendix IIIJ, Sections 3.3 (Leachate Storage Tanks, Evaporation Basins, and Piping), 3.4 (Liquid Waste Bulking Facility) and 3.5 (Citizen Convenience Center). 3. As noted in Comment Response 15, stockpiling of reusable materials (e.g., concrete, asphalt and soil) has been removed from the permit application.
17	293	Part III, Appendix IIIF-D	330.305(d)	The following comments are related to the NOD response for Comment 131 of the first NOD. 1. The application on Page III-D-1 indicates that the final cover design followed the EPA Solid Waste Disposal Facility Criteria Technical Manual. Per the EPA manual, maximum frost depth, not average depth, needs to be used in the erosion layer design. The maximum/extreme frost depth at the project area is about 12 inches

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				per NOAA and 10 TAC §80.21(i). The project site is located halfway between 0.25 m frost line and 0.5 m frost line on the NOAA map (Figure 13 on https://www.ngs.noaa.gov/PUBS_LIB/GeodeticBMs/).10 TAC §80.21(i) indicates 12 inches of frost depth for Hockley County and Lubbock County. The current design uses a frost depth of 6 inches for a total erosion layer thickness at 12 inches, including the thickness required to account for the calculated soil loss. Since the frost depth is 12 inches, revise the application to have a minimal thickness of 18 inches for the erosion layer. 2. Since the application on Page III-D-1 emphasizes the frost depth as one of the design criteria for setting the erosion layer thickness, revise the post-closure plan, to include measures to monitor the thickness of the erosion layer and to maintain the designed thickness (e.g., adding erosion layer material to maintain the thickness greater than the frost depth). 3. The EPA manual (referenced above) and the TCEQ MSW rules require a landfill final cover that minimizes erosion and requires minimal maintenance. Another EPA guidance (Lining of Waste Containment and Other Impoundment Facilities) states that landfill final cover is constructed to function with minimum maintenance "throughout and beyond the post-closure care period." The same EPA guidance also recommends "a soil layer of two or more feet in thickness be placed on the FML and planted with grass and shallow-root plants" at MSW landfills. To eliminate the uncertainties related to the frost depth and the assumptive conditions related to the calculations for the continual thickness reduction due to erosions, as suggested in the original NOD. It is noted that the newly added Section 5.2 in Appendix IIIJ-A states that the grasses selected for the final cover vegetation will have root depths of 6 inches to 8 inches. In the current design, the thickness of the erosion/soil layer will be reduced to 6 inches during the post-closure care period. The grass roots will potentially damage the drainage layer and the geomembrane in the final cover. Revise the final cover design to have an erosion/soil layer of the recommended thickness (24 inches). **Response:** 1. The final cover design complies with and is based on 30 TAC §330.457(a)(3), which requires a minimum erosion layer thickness of 6 inches. Site-specific modeling indicates a maximum projected soil loss of 0.91 inches—not 6 inches as referenced in the comment. Therefore, the proposed 12-inch erosion layer exceeds the regulatory requirement and provides protection against the average frost depth (i.e., 6 inches) and the maximum frost depth (i.e., 12 inches), as further explained below. Drawing A.9 Composite Final Cover Details indicates that 12 inches is the

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				minimum erosion layer thickness. Additionally, the overall thickness of the erosion layer is expected to increase over time due to the natural accumulation of vegetative matter and soil, which will enhance long-term erosion resistance. TCEQ regulations do not impose specific design requirements based on frost depth. However, it is unlikely that the infiltration layer would be affected by frost, as the landfill generates heat from the ongoing decomposition of waste. Furthermore, a 0.25-inch geocomposite drainage layer is installed above the flexible membrane liner (FML), which provides an additional buffer against potential frost penetration. 2. As indicated above, the erosion layer is designed in accordance with 30 TAC §330.457(a)(3). In accordance with Appendix IIIK Postclosure Care Plan, the final cover system will be subject to annual inspections. Maintenance and/or remediation activities will be completed as needed to maintain the integrity and effectiveness of the final cover, site vegetation, and drainage control system. These maintenance activities will ensure continued compliance with design standards and effective long-term performance. 3. As stated in previous responses, the final cover system is designed in accordance with 30 TAC §330.457(a)(3), which requires a minimum of 6 inches of erosion layer. TCEQ regulations do not impose design requirements based on frost depth. However, the final cover infiltration layers are adequately protected against potential freezing due to the combined effects of the erosion layer, overlying geocomposite drainage layer, and the heat generated by the ongoing decomposition of waste. As indicated in Section 5.2 of Appendix IIIJ-A, the grasses selected for final cover vegetation are expected to have typical root depths ranging from 6 to 8 inches. The integrity of the infiltration layer is protected by the overlaying drainage geocomposite creating a physical barrier between the erosion layer and the LLDPE geomembrane. Additional text has been added to Appendix IIIF-D to clarify the above information.
18	301	Part IV, Section 4.22	330.305(g)	Section 4.2 of Appendix IIIC was revised to address NOD 131.1 of the first NOD. Revise Section 4.2 by inserting “sent to” after “or” in the newly added sentence. **Response:** Section 4.2 – Contaminated Water Management was revised as requested.
19	306	Part III, Appendices IIIF-A and IIIF-E	330.63(c)(1)(B)	The response to NOD 137.1 of the first NOD states that Drawing IIIF.15 has been revised to indicate the freeboards for the 100-year storm. The freeboards in Drawing IIIF.15 for where flow from the Unnamed Tributary enters the perimeter channel for the 100-year storm seems greater than for the 25-year storm as shown in Drawing IIIF.5 (9.01 ft vs 3.93 ft). Similar comparisons also exist at other stations/locations along the perimeter drainage system. By comparing Drawings IIIF.5 and IIIF.6 with the

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				newly added Figure IIIJ-1A, it seems that the freeboards for the 25-year storm and 100-year storm reference different channel banks. Briefly explain the rationales of different channel banks being used in measuring the freeboards. Figure IIIJ-1A was added in response to Comment 158 of the first NOD. For easy illustration and comparison, consider adding channel stations to Drawing IIIF.15. **Response:** Drawing IIIF.15 and Figure IIIJ-1A illustrate the 100-year freeboard relative to the waste boundary limits, while Drawings IIIF.5 and IIIF.6 depict the 25-year freeboard to the channel crest. The 25-year freeboard drawing is included to demonstrate compliance with TAC §330.303(a) and (b) and TAC §330.305(b) and (c). This demonstrates that the channels are designed to effectively manage run-on and runoff from the 25-year storm event. The 100-year floodplain drawings are included to prove flood protection of the landfill consistent with TAC §330.307. However, it should be noted (as discussed in the response to Comment 20), the site is not proposing to construct any levees.
20	314	Part III, Appendix IIIF, Figure 4.6	330.63(c)(2)(A)	1. The response to NOD 139.1 of the first NOD states that the FEMA approval (CLOMR) has not been issued. Revise Section 2.4 of Appendix IIIF to clarify as such. 2. As illustrated in Drawing IIIF.15, the perimeter channels are the 100-year floodplain/floodway. The bank/berm in the application of the channels function as a "levee." Consistent with comment 139.4 of the first NOD discuss and revise to ensure the "levee" complies with applicable requirements of 330.307. **Response:** 1. Appendix F, Section 2.4 – Floodplain has been revised to indicate that the CLOMR is currently under review by FEMA, and a copy of the approval letter will be incorporated into Appendix IIIF-G Excerpts from CLOMR once it's received. 2. The landfill perimeter berm and perimeter channels at the site are neither designed as nor function as levees. The site's channels are designed as open conveyance structures that facilitate the controlled movement of stormwater around the landfill and direct it offsite, ultimately discharging into Rich Lake. They are graded and sized to ensure efficient stormwater conveyance during design storm events, including the 100-year storm. This is demonstrated in Drawing IIIF.15, Freeboard Summary Plan, which confirms that more than 2 feet of freeboard is maintained throughout the channels during a 100-year event, indicating sufficient capacity and proper hydraulic performance. In addition, the landfill development extends well above the height of the perimeter berm. Fill will be placed behind the berm, completely filling the area to an elevation significantly higher than the top of the perimeter berm. When the landfill is fully developed, no portion of the area behind the perimeter berm will lie below the 100-

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
				year floodplain elevation. Requiring landfill perimeter berms and channels to be designed, maintained, and permitted as levees would represent a sudden and drastic re-interpretation of the landfill perimeter drainage system and would be inconsistent with how TCEQ has historically regulated perimeter berms and channels. We reiterate that no levees are being proposed for construction at this facility.
21	315	Part III, Appendix IIIF-G	330.63(c)(2)(B)	1. The response to Comment 140.5 of the first NOD states that the basis for adding the tributary is the existing topography and the presence of the Zone A floodplain. Since the effective FEMA map does not show any streams/outfalls from the circular floodplain, clarify if evidence of the Unnamed Tributary has been verified by on-site investigation or other reliable means other than existing topography. 2. If there is no evidence of the Unnamed Tributary in the floodplain, consistent with comment 140.2 of the first NOD, clarify if it is the applicant's intention to voluntarily subject the said surface drainage feature to full requirements for a floodplain under Chapter 330. **Response:** 1. The presence of the Unnamed Tributary has been further supported by both the existing topography and observable surface features visible in aerial imagery. While the effective FEMA map does not delineate a defined stream or outfall from the circular Zone A floodplain, on-site evaluations and high-resolution aerial imagery confirm the presence of rills and concentrated flow paths extending from the floodplain boundary. These rills are indicative of sustained overland flow patterns and erosion, which are consistent with natural drainage features that typically develop into tributaries over time. The alignment of these rills with the surrounding topography further supports the identification of a continuous drainage path leading away from the Zone A area. Although not formally mapped by FEMA, this evidence provides a reliable and field-verifiable basis for identifying and incorporating the Unnamed Tributary into the drainage analysis and site planning. 2. The Zone A floodplain is mapped by FEMA and is therefore considered an existing, regulated floodplain area. As such, the applicant is not voluntarily subjecting the site or the unnamed surface drainage feature to the floodplain requirements under 30 TAC Chapter 330; rather, the applicant is acknowledging and addressing the presence of a federally mapped Zone A floodplain, which must be considered in accordance with regulatory requirements. The inclusion of the unnamed tributary in the drainage and floodplain analysis is based on the existence of the FEMA-mapped Zone A floodplain, supported by site topography and aerial imagery showing evidence of surface flow paths and rill

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				development. This approach ensures consistency with Chapter 330 rules, which require that mapped floodplain areas be identified and addressed as part of landfill siting and design, regardless of whether a clearly defined channel is delineated on FEMA maps. Therefore, the analysis and corresponding design considerations are a direct response to FEMA's mapping and are not indicative of a voluntary designation or expanded interpretation of floodplain boundaries by the applicant.
22	335	Part III	330.63(c)(2)(D)(i)	Provide a copy of the CLOMR approval letter from FEMA. **Response:** The CLOMR is currently under review by FEMA, and a copy of their approval letter will be provided once it is received.
23	349	Part III, Appendix IIIA-A, Drawings A.1 and A.2	330.63(d)(4)(C)	Revise Appendix IIIM of Part III to incorporate the explanations in response to Comment 142.2 of the first NOD regarding how the air space/total landfill volume is determined. **Response:** Appendix IIIM, Section 1.3 – Landfill Capacity was revised, as part of the response to Comment 142.2 of the first NOD, to incorporate a detailed explanation of how the total landfill volume (airspace) is calculated. The revised text in Section 1.3 reflects the methodology and explanation provided in the response to Comment 142.2 and is consistent between the comment response and the application documentation.
24	376	Part III, Appendix IIIC-B	330.333(A)-(G)	The response to Comment 146 of the first NOD states that the protective cover will have passageways (i.e., chimneys). Revise Page IIIC-B-50 by replacing "min. 3 ft" with "min. 4 ft" to be consistent with Sheet IIIA-A.4. Also ensure sufficient capacity of the leachate collection pipes with respect to the sector acreages shown in Sheet IIIA-A.1 and used on Page IIIC-B-3. Revise drawings and calculations as necessary. **Response:** Appendix IIIC-B - Lechate Collection Pipe Structural Stability Page IIIC-B-50 has been revised to indicate a minimum width of the chimney drain as 4 feet. As indicated on Page IIIC-B-2, the leachate collection pipe calculations shown in Appendix IIIC-B have been conservatively designed based on the largest individual sector area depicted in Sheet IIIA-A.1. This approach ensures that the pipe sizing provides adequate capacity to manage leachate generation across the largest area anticipated. As a result, the existing pipe sizing and associated calculations on Page IIIC-B-3 remain valid and do not require revision, as they already account for the worst-case sector scenario.
25	383	Part III	330.337(c)	1. In response to Comment 149.1 of the first NOD, a new Appendix IIID-B (Ballast Demonstration) was added. To prevent inadvertent omission by the design engineers and the POR during liner design, construction and reporting, revise the

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
				Table of Contents and the main text body of Appendix IIID to briefly discuss/refer to the measures included in the new Appendix IIID-B. 2. Appendix D, Section 2.3.7 was revised to refer to Appendix E, Section 4.3 for measures on groundwater seepage during excavation. Clarify if seepage and pumping have the same meaning as used in the aforementioned sections; or, revise Appendix E, Section 4.3 to address seepages during excavation. **Response:** 1. As part of the revisions for Comment 149.1 in NOD 1, the Table of Contents was updated accordingly to include the new appendix. Section 2.2 – Composite Liner of Appendix IIID has been revised to reference Appendix IIID-B, ensuring that the ballast demonstration measures are clearly identified and accessible to design engineers and the Professional of Record (POR) during liner system design, construction, and certification. 2. The term "pumping," as used in Appendix E, Section 4.3, is a standard and widely recognized term in earthwork construction and geotechnical engineering. It refers to the deflection or yielding of foundation soils under load—typically observed during inspection under heavy rubber-tired vehicles or large earthmoving equipment used for subgrade preparation. In this context, "pumping" is unrelated to "seepage," which specifically describes the movement or emergence of water from foundation soils during excavation. Section 4.3 of Appendix IIIE was updated per previous comment 149.3 to address seepage.
26	397	Part III, Appendix IIID	330.339(a)	Revise Section 7.2 of Appendix IIID as requested in Comment 150.4 of the first NOD to remove the paragraph added to Section 7.2 and revise the existing second paragraph to include measures for preparation and submittal of the Interim Status Report as described in Section 7.2 of the TCEQ RG-534. **Response:** Appendix IIID, Section 7.2 has been revised to clarify the requirements for inspection of covered and uncovered liners after construction, including the requirement for submittal of the Interim Status Report as described in TCEQ RG-534.
27	685	Part III, Appendix IIIJ, Section 2	330.457(a)	Consistent with comment 153 of the first NOD, revise Table 3-1 of Appendix IIIJ-A to specify proper qualifiers for values listed in Column "Required Values." An example is for Fluid Loss to be no greater than 18 mL (≤ 18 mL). Check and revise Note 2 to Table 3-1 accordingly. **Response:** Table 3-1 in Appendix IIIJ-A has been revised accordingly. Note 2 has been stricken with the revisions to the table.

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
28	686	Part III, Appendix IIIJ, Section 2.2	330.457(a)(1)	After addressing the comments related to final cover design (thickness of the soil layer over the geomembrane) in this NOD, address the following comments from comment 154(1) and 154(2) of the first NOD. 1. As modeled by HELP and listed on Page IIIJ-A-A-17, the peak daily heads on geomembrane in the final cover exceed the drainage geocomposite thickness. Revise to discuss the impact on slope stability or refer to where in the application the relevant information is contained. The final cover must remain stable under the modeled conditions. 2. The erosion layer thickness is listed at 12 inches in the HELP modeling presented on Page IIIJ-A-A-17. Clarify if the modeling conditions are conservatively representative of all possible final cover conditions (i.e., erosion layer thinner than 12 inches. The application indicates the erosion layer thickness after installation will decrease to 6 inches). Revise the modeling and other relevant portions of the application as necessary. Refer to comments regarding frost depth on MRI ID 293. **Response:** 1. The infinite slope stability modeling for the final cover system, as presented in Appendix IIIE-A-4 was performed assuming a "Maximum Head Above Interface (ft)" or T equal to 1 foot, which is greater than the peak daily head of 8.931 inches shown in the table presented on Sheet IIIJ-A-A-17, hence the stability analyses for the final cover are conservative. A footnote has been added to the table presented on Sheet IIIJ-A-A-17 that references the final cover stability analyses shown in Appendix IIIE-A-4. Note also that a minor change was made to the second row from the bottom in the table on Sheet IIIJ-A-A-17, clarifying that the "Lateral Drainage Depth" is actually "Lateral Drainage Collected" consistent with the HELP modeling output. 2. The final cover system will include a minimum of 12 inches of erosion layer thickness, consistent with the conditions used in the HELP model presented on Page IIIJ-A-A-17. While there is potential for some compaction or settling, the final constructed erosion layer will not be less than 12 inches. This thickness will be verified during construction and maintained throughout the post-closure care period through regular monitoring and maintenance in accordance with IIIK Postclosure Care Plan. The maximum expected soil loss for the site is calculated as 0.91 inches as shown in Appendix IIIF-D, not 6 inches. As mentioned in Comment 17, the thickness of the erosion layer is expected to increase over time due to the natural accumulation of vegetative cover and soil. Therefore, the modeling assumptions are representative of actual final cover conditions, and no revisions to the HELP modeling or related sections of the application are necessary.

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
29	689	Part III, Appendix IIIJ, Section 2.2	330.457(a)(3)	A new sentence was added to Page IIIJ-3 in response to Comment 155.1(a). Revise the new sentence by inserting "of 80 percent" between "vegetation coverage" and "will be." **Response:** Page IIIJ-3 was revised to include the requested language.
30	692	Part III, Appendix IIIJ-B	330.457(d)(1)	Page IIIJ-B-1-1 was revised to address Comment 156 of the first NOD. Revise the modeled percolation for side slope on Figure IIIJ-B.1 for composite final cover, to be consistent with Page IIIJ-B-1-1. **Response:** Figure IIIJ-B.1 has been revised to be consistent with page IIIJ-B-1-1.
31	714	Part III, Appendix IIIJ, Section 3.5-3.6	330.459(a)	In response to Comment 161 of the first NOD, a new Note 2 was added to Figure III-1. Note 2 states that recyclable materials (concrete, asphalt, and soil) will be staged in temporary stockpiles at strategic locations within the permit boundary. Revise to add closure measures and cost estimates for recyclable materials as requested in Comment 161.3 of the first NOD for the recyclable materials. Note that recyclable materials become wastes when left onsite during landfill closure and must be disposed in the landfill. **Response:** As stated in comment response 15, stockpiling of reusable materials (e.g., concrete, asphalt and soil) has been removed from the permit application. Figure III-1 has been revised to remove Note 2, and reference to the stockpiles within the flowchart. As stated in the application (and the NOD1 responses) the closure/post-closure care cost estimates will be updated to include the remaining recycling activities (as well as the Citizens Convenience Center) in the future to coincide with the installation of these facilities at the landfill.
32	738/ 749	Part III, Appendix IIIL	330.503(a), 330.507(a)	Regarding the response to Comment 97 of the first NOD, while it is understood that the current permit does not require groundwater monitoring and the like, a Type 1 facility does and the cost estimates must cover the installation of any systems required by rule to close any areas that currently have waste which lack a final cover and those areas that are expected to receive waste in the following year. Revise the closure/post-closure care cost estimates to account for the systems needed after the landfill no longer accepts waste. **Response:** The closure/post-closure care cost estimates have been updated to include the installation of a groundwater monitoring well network, as required for a Type 1 facility. These revised estimates account for the systems necessary to close areas that currently contain waste but lack final cover, as well as those anticipated to receive waste in the upcoming year.

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
33	741/ 751	Part III, Appendix IIIL, Section 4	330.503(a)(3)	Comment 63 of the first NOD requested an acknowledgement that any reduction in the closure/post-closure cost estimates be submitted as a permit modification. The response indicated that this request was already fulfilled by the existing language. The existing language says that the applicant will "submit written notice to the Executive Director" of the reduction which will "be considered a permit modification". Revise the discussion to clarify that a permit modification will be submitted and issued before the reduced cost estimate takes effect. The cost estimates changes cannot be authorized under a notice. **Response:** Appendix IIIL, Section 4 – Cost Estimate Adjustments has been revised to indicate a reduction in costs will not take effect until a permit modification has been submitted and approved by the Executive Director.
34	799-800	Part IV, Section 7.7	330.129	Demonstrate that the facility will have the capacity to cover all uncovered waste in six inches of soil within one hour from the detection of a fire. **Response:** Section 7.7.1 specifies that the fire protection plan in the application is an alternative method, per §330.129, and provides a description as to why it is more comprehensive than the prescriptive plan. Sections 7.7.2 and 7.7.4 have been revised to indicate that this section provides alternative fire fighting methods as allowed by TAC §330.129. Additionally, example calculations demonstrating that the working face can be covered with six inches of soil within one hour have already been provided in Section 7.7.4 Soil Stockpile Requirements.
35	863	Part IV, Section 4.12	330.153(c)	The frequency of regrading must be specified in the site operating plan. Provide a minimum frequency for regrading of access roads; e.g. every 6 months, once per year, etc. **Response:** Section 4.12 – Maintenance of Site Access has been revised to state that landfill haul and access roads will be regraded as necessary, or at a minimum, once per year.
36	872	Part I/II, Section 2.5; Part IV, Section 4.16	330.161(b)	Acknowledge that written notification to the executive director will be submitted within 30 days of the discovery of any well under the jurisdiction of the Railroad Commission of Texas. The existing language containing the 30-day discovery notification requirement only refers to water wells. **Response:** Section 4.16 Treatment of Oil, Gas, and Water Wells has been revised to indicate that the Operations Manager or his designee will provide written notification to the Executive Director of the location of any and all existing or abandoned crude oil or natural gas wells, or other wells associated with mineral recovery that are under the

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
				jurisdiction of the Railroad Commission of Texas within the facility upon discovery during site development.
37	915-920	Part IV, Appendix C	330.57(d)	List the individual Section or Sections where each rule is addressed beneath this NOD item. The checklist citations only reference 'Appendix IVC'. **Response:** We have addressed each of the requirements described in the checklist individually below. **Checklist Item 915** This item is addressed in the 2nd bullet of Section 4.20 in the SOP. **Checklist Item 916** This item is addressed in the 3rd bullet of Section 4.20 in the SOP. **Checklist Item 917** There is no checklist item 917 **Checklist Item 918** Appendix IVC, Section 1.2 has been revised to reflect that petroleum contaminated soils exceeding the limits set forth in Title 30 TAC §330.171(b)(4) will not be accepted for disposal at the landfill. **Checklist Item 919** Appendix IVC, Section 3.3 has been revised to state that authorization by the executive director of a special waste for disposal does not oblige the landfill to accept the special waste. **Checklist Item 920** Appendix IVC, Section 1.2 has been revised to include the statement that the authorization to accept special waste may be revoked by the executive director.
38	990	Part IV, Appendix D, Section 3.1	330.203(b)	Provide the estimated daily amounts of each waste to be received. **Response:** The table in Section 3.1 – Properties and Characteristics of Waste has been revised to include a column for the estimated daily amount of each waste to be received.
39	1093	Part IV, Appendix D, Section 8.12	330.245	Clarify the explanation for "accelerated" schedule by describing the meaning of "prior to delivery" and "proactive processing for odor". The terms seem to imply that waste under accelerated processing will either have already been partially or completely processed by the time they arrive. **Response:** The language has been revised to indicate that an accelerated schedule (i.e., the odor causing waste will be prioritized for processing once onsite) to prevent odors.

NOD ID	MRI ID	Location	Rule (30 TAC)	Comment
40	1030 - 1031	Part IV, Appendix D, Section 5	330.211	1. Clarify if the bulking facility will accept waste types containing food waste. 2. If the answer to the above question is Yes, describe how the basins will be emptied. **Response:** 1. The site will not accept food waste as liquid waste requiring solidification prior to disposal, nor do we believe that the description of acceptable wastes presented in Appendix IVD, Section 3.1 could be interpreted to include food wastes. Reference to restaurant and food processing wastes might include grit trap and septage cleanings, grease, food processing wastes (cleaning fluids, etc.), and other commercial and industrial wastes. While not defined by the regulations, we interpret the term "food waste" to include restaurant plate scrapings, spoiled foods, and other foods that would be acceptable for direct disposal into the landfill without the additional steps of solidification. 2. As indicated above, the bulking facility will not accept food waste.

ATTACHMENT 2

REPLACEMENT PAGES (REDLINE/STRIKEOUT VERSION)

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

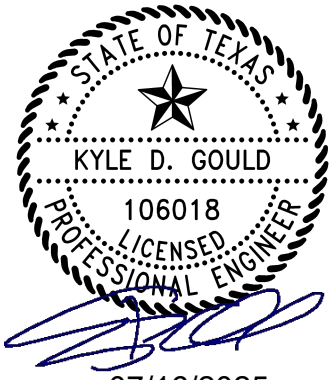
VOLUME 1 OF 6

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

Weaver Consultants Group, LLC
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817-735-9770

WCG Project No. 0120-809-11-05

This document is intended for permitting purposes only.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

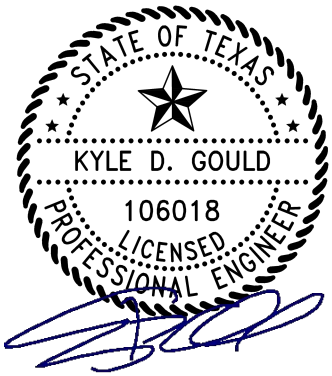
TCEQ APPLICATION FORMS AND MAILING LABELS

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



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Weaver Consultants Group, LLC
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817-735-9770

WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.

WASTE ACCEPTANCE PLAN FORM TCEQ-20873

Texas Commission on Environmental Quality

Waste Acceptance Plan Form
Type I and Type IAE Landfill Facilities

This form is designed to address the requirements for Waste Acceptance Plans in Part II of an application, as required by Title 30 Texas Administrative Code, Chapter 330, §330.61(b)(1). Rules are from Chapter 330 unless otherwise specified. If more space is needed for a line item or table item, include the information on a separate sheet and reference the line or table item.

A. Applicant Information

1. Facility Name: City of Meadow Landfill
2. MSW Permit No.: 2293C

B. Waste Generation Areas and Population Estimates

Table 1. Areas contributing waste to the facility and estimate of population or population equivalent served by the facility. Values are estimates, not permit limits.

Waste Generation Area	Estimate of Population or Population Equivalent Served in each Area
Meadow	585
Terry County	13,599
Lubbock County	~~309,769~~ 166,976

Estimated population or population equivalent served by the facility

~~323,953~~ 181,160

C. General Sources and Types of Waste to be Accepted at the Facility

General sources of waste to be received (household, commercial, industrial, etc.).

Municipal solid waste, household waste, yard waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special waste.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

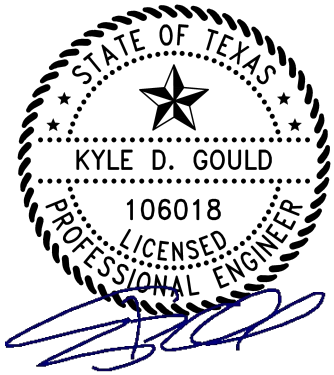
PARTS I/II
GENERAL APPLICATION REQUIREMENTS

Prepared for

Meadow Landfill, LLC

August 2024
Revised August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

Weaver Consultants Group, LLC
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817-735-9770

WCG Project No. 0120-809-11-06

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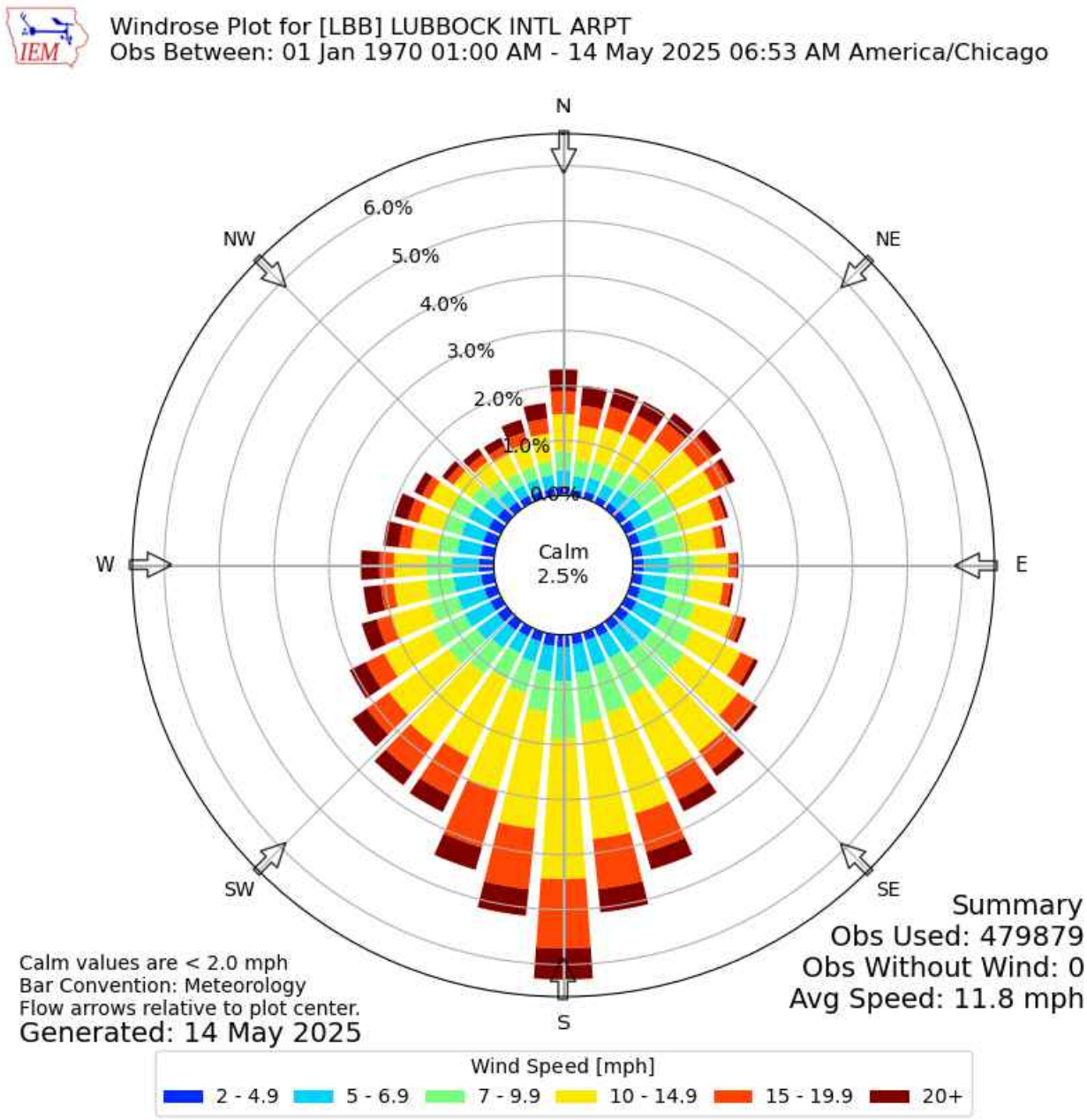

NOTE:

1. THE WIND ROSE IS REPRODUCED FROM THE AUTOMATED SURFACE OBSERVING SYSTEM (ASOS) AT LEVELLAND AND GENERATED FROM THE IOWA ENVIRONMENTAL MESONET. THE ASOS IS A JOINT PROGRAM OF THE NATIONAL WEATHER SERVICE, THE FEDERAL AVIATION ADMINISTRATION AND THE DEPARTMENT OF DEFENSE.

LIST OF REVISIONS:

1. NEW FIGURE.

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

1

MAJOR PERMIT AMENDMENT
ASOS WIND ROSE

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

DRAWN BY: RAA	DATE: 06/2025	FILE: 0120-809-11
REVIEWED BY: JBM	CAD: I/II-4-2B WIND ROSE.DWG	FIGURE I/II-4.2B

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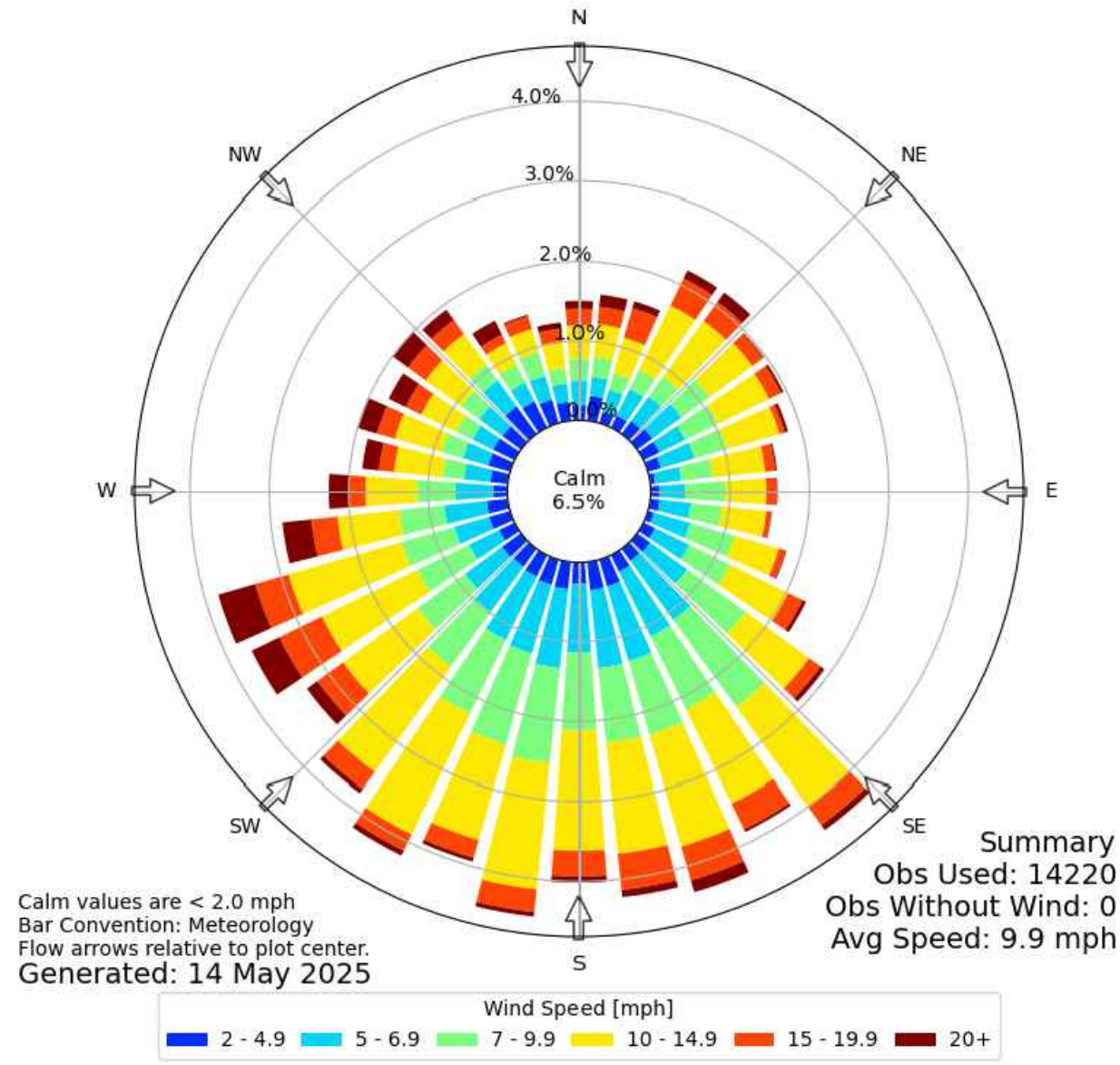

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LIST OF REVISIONS:

1. NEW FIGURE.

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

MAJOR PERMIT AMENDMENT
ASOS WIND ROSE

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

DRAWN BY: RAA	DATE: 06/2025	FILE: 0120-809-11
REVIEWED BY: JBM	CAD: I/II-4-2C WIND ROSE.DWG	FIGURE I/II-4.2C

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CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

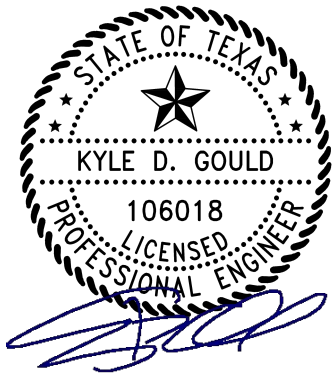
APPENDIX I/IIA
FACILITY LAYOUT MAPS

Prepared for

Meadow Landfill, LLC

July 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

Weaver Consultants Group, LLC
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WCG Project No. 0120-809-11-05

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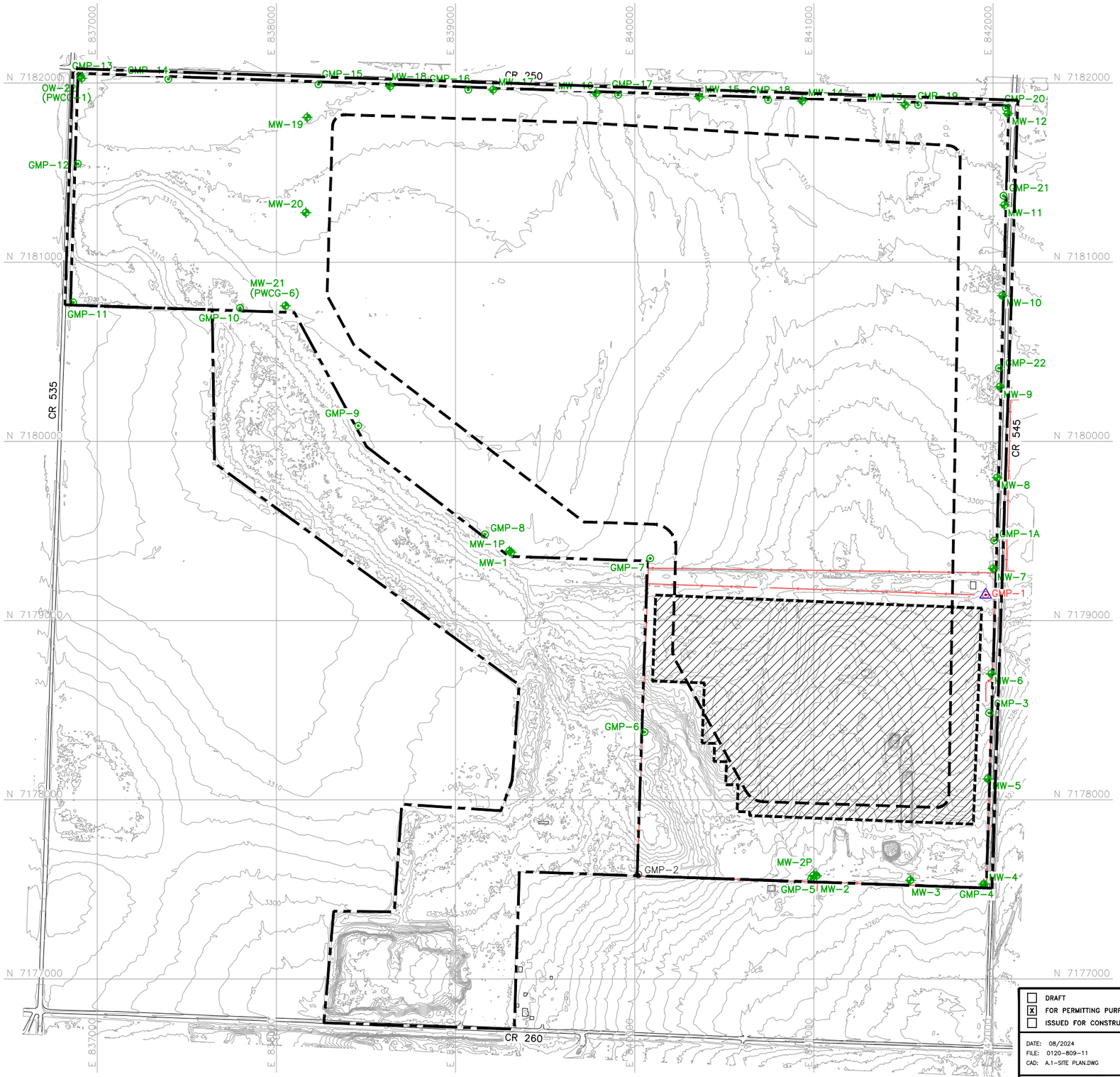


0 300 600
SCALE IN FEET

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

LEGEND

- PROPERTY BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- N 7180000 — STATE PLANE COORDINATE SYSTEM
- 350 — EXISTING CONTOUR
- EXISTING FENCE
- SITE BENCHMARK (SEE NOTE 4)
- HISTORIC WASTE TO BE RELOCATED (SEE NOTE 7)
- GMP-2 — EXISTING LANDFILL GAS MONITORING PROBE
- GMP-1 — EXISTING LANDFILL GAS MONITORING PROBE (TO BE DECOMMISSIONED)
- MW-10 — PROPOSED GROUNDWATER MONITORING WELL
- GMP-21 — PROPOSED GAS PROBE
- 1 — INDICATES REVISION (SEE LIST OF REVISIONS)

NOTES:

1. EXISTING CONTOURS ARE CREATED FROM UNMANNED AERIAL SURVEY DATA COLLECTED BY WEAVER CONSULTANTS GROUP, LLC ON OCTOBER 20, 2022. THE GRID SYSTEM IS TIED TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE, NAD83 (2011) EPOCH 2010.00 AND HAS BEEN SCALED TO SURFACE COORDINATES BY DIVIDING BY THE COMBINED SCALE FACTOR OF 0.99972824 FROM AN ORIGIN OF 0,0.
2. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. PERMIT BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP IN APRIL 2023.
4. THE SITE BENCHMARK INFORMATION IS LISTED BELOW.

SITE BENCHMARK INFORMATION

MONUMENT	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION (FT-MSL)
200	7179142.87	841959.98	102°11'20.00" W	33°18'14.97" N	3297.45

5. THE SEQUENCE OF SITE DEVELOPMENT IS PROVIDED ON DRAWINGS I/IIA.4 THROUGH I/IIA.7.
6. UNAUTHORIZED ACCESS TO THE EXISTING FILL AREA AND FACILITY IS CONTROLLED WITH PERIMETER FENCING (MINIMUM 4-FOOT HIGH, 3-STRAND BARBED WIRE FENCE), GATED ENTRANCE AND NATURAL BARRIERS (DENSE FOLIAGE, VEGETATION, AND WATERWAYS). REFER TO DRAWING I/IIA.10 FOR ACCESS CONTROL PLAN.
7. HISTORIC WASTE WILL BE EXCAVATED AND RELOCATED INTO THE SUBTITLE D-LINED DISPOSAL CELLS DURING LANDFILL DEVELOPMENT.
8. DEED DESIGNATIONS THAT FORM THE PROPERTY BOUNDARY ARE SHOWN ON PAGE I/II-13-6. LEGAL DESCRIPTIONS OF THE PARCELS OF LAND CAN BE FOUND IN PART I/II-13.

LIST OF REVISIONS:

1. ADDED LATITUDE AND LONGITUDE TO SITE BENCHMARK TABLE.

- [ ] DRAFT
- [x] FOR PERMITTING PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120-809-11
CAD: A.1-SITE PLAN.DWG
DRAWN BY: JDW
DESIGN BY: CAM
REVIEWED BY: KDG

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS

NO.	DATE	DESCRIPTION
1	02/2025	1ST TCEQ COMMENT RESPONSE
2	07/2025	SEE LIST OF REVISIONS

MAJOR PERMIT AMENDMENT SITE PLAN

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

WWW.WCGRP.COM

DRAWING I/IIA.1

SHEET I/IIA-1

O:\0120\809\EXPANSION 2023\PARTS I-II\A.1-SITE PLAN.dwg, jpuhr, 1:2

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

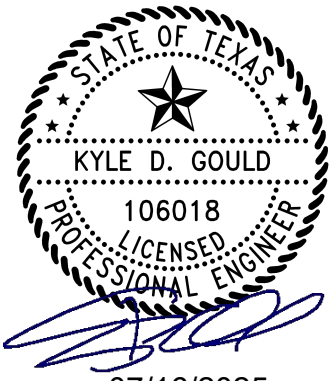
PARTS I/IIC
LOCATION RESTRICTION DEMONSTRATIONS

Prepared for:

Meadow Landfill, LLC.

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by:

Weaver Consultants Group, LLC
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WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.

2 EASEMENTS AND BUFFER ZONES

The easements and buffer zones location restrictions within Title 30 TAC §330.543 require that no solid waste disposal shall occur within 25 feet of the center line of any utility line or pipeline easement but no closer than the easement, unless otherwise authorized by the Executive Director. Also, all pipeline and utility easements shall be clearly marked with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet. In addition, for vertical or lateral expansions, the owner or operator shall establish and maintain a 125-foot buffer zone for any newly permitted airspace.

The proposed buffer zones for the site are shown on Drawing I/IIC-1 and are discussed below.

- **Limit of Existing Waste.** As shown on Drawing I/IIC-1, a buffer zone of at least 50 feet is maintained between the permit boundary and the limit of existing waste defined in TCEQ Permit No. 2293.
- **Proposed Limit of Waste.** As shown on Drawing I/IIC-1, a buffer zone of at least 125 feet is maintained between the permit boundary and the proposed new waste disposal airspace (labeled as "proposed limit of waste"), consistent with Title 30 TAC §330.543(b)(2)(B).
- **Leachate Storage Tank Area.** A buffer zone of over 50 feet is maintained between the permit boundary and the proposed leachate storage tank area.
- **Citizens Convenience Center.** A buffer zone of over 50 feet is maintained between the permit boundary and the proposed Citizens Convenience Center.

There are no easements located within the permit boundary at the site. No solid waste unloading, storage, disposal, or processing will occur within 25 feet of the centerline any easement, buffer zone, or right-of-way. In addition, all utility line and pipeline easements will be clearly marked in accordance with the Site Operating Plan.

Given the above, the site is in compliance with the easements and buffer zone location restrictions.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

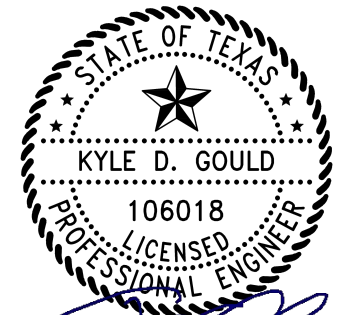
PART III – SITE DEVELOPMENT PLAN
SITE DEVELOPMENT PLAN NARRATIVE

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

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817-735-9770

WCG Project No. 0120-809-11-05

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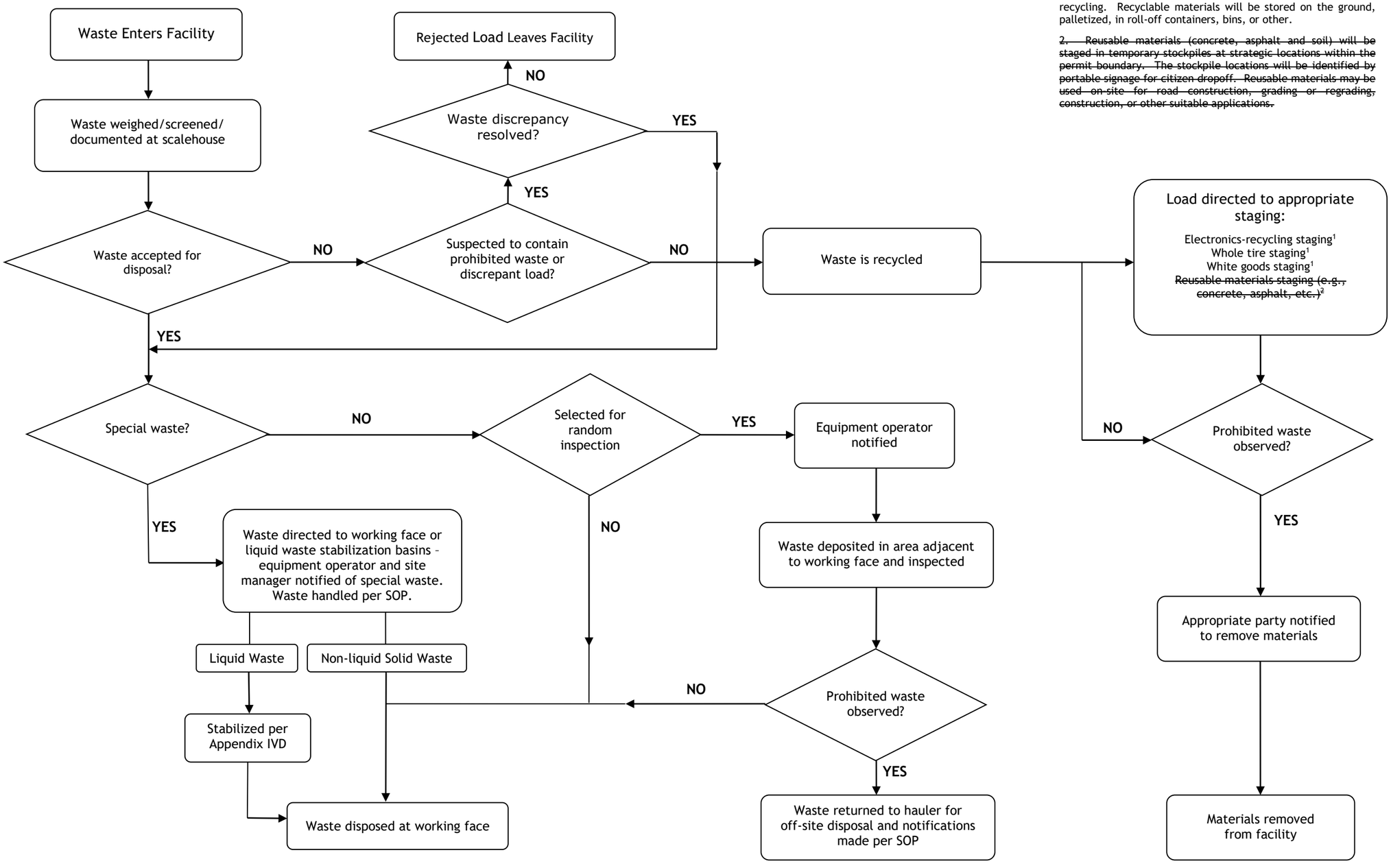
Figure III-1
Waste Movement Flow Diagram



Notes

1. Recyclable Electronics, whole tires, white goods and other non-putrescible recyclables will be staged at the Citizens Convenience Center in non-designated areas, staged in a manner not to impede citizen access to the disposal roll-off containers. The recyclables will periodically be removed from the site by recycling vendors or transported off-site for recycling. Recyclable materials will be stored on the ground, palletized, in roll-off containers, bins, or other.

~~2. Reusable materials (concrete, asphalt and soil) will be staged in temporary stockpiles at strategic locations within the permit boundary. The stockpile locations will be identified by portable signage for citizen dropoff. Reusable materials may be used on-site for road construction, grading or regrading, construction, or other suitable applications.~~

- working face personnel. The load will be promptly covered with soil or solid waste when it arrives at the working face.
- Inspect the leachate collection and storage system to confirm that it is functioning as designed (e.g., inspect piping and storage tank system to verify no leaks have occurred).

2.2.4 Generalized Construction Details (§330.63(b)(2)(D))

Generalized construction details for the landfill are included in Parts I/II, Appendix I/IIA and in this SDP (e.g., Appendix IIIA). Details of the leachate management system are included in Appendix IIIC. Refer to Section 4.2.1 of the SOP for details on the Citizens Convenience Center and Appendix IVD for details on the Liquid Waste Bulking Facility.

2.3 Water Pollution Control (§330.63(b)(4))

The site is designed to prevent discharge of pollutants into waters of the state or waters of the United States, as defined by the Texas Water Code and the Federal Clean Water Act, respectively. The City of Meadow Landfill is subject to TCEQ's storm water permit requirements. A copy of the TPDES permit is included in Appendix I/IIE. Surface water monitoring will be conducted consistent with TPDES requirements.

2.4 Protection of Endangered Species (§330.63(b)(5))

Information regarding the protection of endangered species in accordance with Title 30 TAC §330.61(n) and §330.63(b)(5) is provided in Parts I/II, Section 12 – Protection of Endangered Species; and Part IV-SOP. No endangered or threatened species have been documented at the site nor has a critical habitat for such species been identified at the site. Neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species. If endangered or threatened species are encountered during site operations, Texas Parks and Wildlife and U.S. Fish and Wildlife will be notified. A site specific Threatened and Endangered Species Habitat Assessment is included in Parts I/II, Appendix I/IIB (refer to the TPWD and FWS tabs).

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

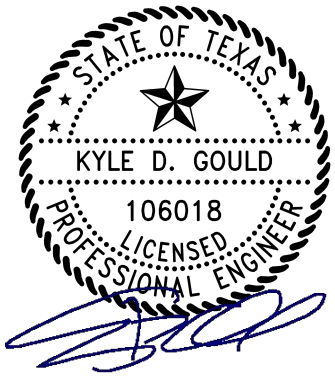
VOLUME 2 OF 6

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

Weaver Consultants Group, LLC
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6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-809-11-05

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CITY OF MEADOW LANDFILL
TERRY COUNTY
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIC
LEACHATE AND CONTAMINATED WATER MANAGEMENT PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025

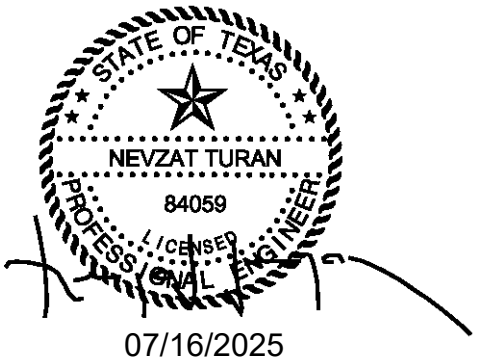

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Table 4-1
Sump Flow and Pump Operating Times

Sump Storage Summary			
Condition	Sectors 1 through 18[1]		
	Flow (gpd)	Pump Operating Time (hours/day)	Pump Capacity (gpm)
	Average[2]	Average[2]	
Active	353.9	0.6	10
Interim	880.3	1.5	10
Closed	187.1	0.3	10

[1] Sumps draining the largest LCS layer areas are shown. Refer to Appendix IIIC-B, Sheet IIIC-B-38 – Sump Drainage Areas for Sector layout and areas draining to each sump.
[2] Refer to Appendix IIIC-B, page IIIC-B-34 for sump design calculations.

4.2 Contaminated Water Management

Contaminated water will be contained at the working face as shown in Appendix IIIC-C. A vacuum truck or similar vehicle will remove contaminated water from this area. Contaminated water will then be transported via tanker trucks to a properly permitted offsite wastewater treatment facility. Contaminated water may be stored in the leachate tank or sent to evaporation ponds; however, comingled contaminated water and leachate will not be recirculated (refer to Section 5.2).

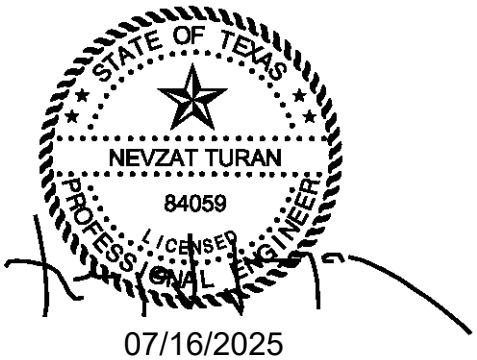
4.3 Onsite Storage Tank(s) and Evaporation Ponds

The proposed minimum 21,000-gallon leachate storage tank and evaporation ponds will provide enough storage capacity for the leachate expected to be generated at the site. Contaminated water and landfill gas condensate will also be stored in the leachate tank or evaporation ponds as discussed in Sections 5.3 and 5.4. The storage tank and evaporation ponds will be emptied, as required, to maintain capacity for the leachate currently generated at the site. The leachate level in the tank will be managed to provide a minimum of 15,000 gallons of emergency backup storage capacity. The leachate level in the evaporation pond will be managed to provide a minimum of 2 feet of freeboard.

Leachate storage capacity calculations are provided in Appendix IIIC-D. The tank is equipped with a liquid-level sensor and a high-level alarm to prevent overfill. When the high level alarm is triggered, a light on the tank will start flashing, which will

APPENDIX IIIC-B

LEACHATE COLLECTION SYSTEM DESIGN CALCULATIONS



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2. Determine the minimum drainage capacity of the chimney drain.

Minimum drainage capacity of the chimney drain per unit length (1 ft):

$$Q_{ult} = k * i * w * 1$$

where:

Q_{ult} = Ultimate flow rate
k = Minimum permeability of the geotextile wrap
i = Hydraulic gradient = 1 under free drainage
w = Width of the chimney drain keyed into the waste layer, measured at the top of protective layer, min. ~~3~~4 ft, as shown in Appendix IIIA-A, Drawing A.4

k =	0.2	cm/s	=	6.56E-03	fps (Ref. 1)
i =	1				
w =	4	ft			

Q_{ult} = 2.62E-02 cfs

To determine the allowable drainage capacity of the geotextile, the following reduction factors are used:

Table 1 - Reduction Factors[1]

RF_{SCB} =	Reduction factor for soil clogging and blinding	2.0
RF_{CR} =	Reduction factor for creep reduction of void space	2.0
RF_{IN} =	Reduction factor for adjacent materials intruding into void spaces	1.2
RF_{CC} =	Reduction factor for chemical clogging	1.5
RF_{BC} =	Reduction factor for biological clogging	2.0
	Overall Reduction Factor (ORF) =	14.4

[1] Reduction factors obtained from Ref. 2.

$$Q_{allow} = Q_{ult} / ORF$$

where:

Q_{allow} = Allowable flow rate
Q_{ult} = Ultimate flow rate
ORF = Overall reduction factor from Table 1

Q_{allow} = 1.82E-03 cfs

Q_{allow} = 1.82E-03 cfs >> Q_{req} = 3.77E-06 cfs

The predicted flow does not exceed the capacity of the chimney drain geotextile. The chimney drain design is adequate to convey the generated leachate to the leachate collection pipe.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIID
LINER QUALITY CONTROL PLAN

Prepared for

Meadow Landfill, LLC

August 2024
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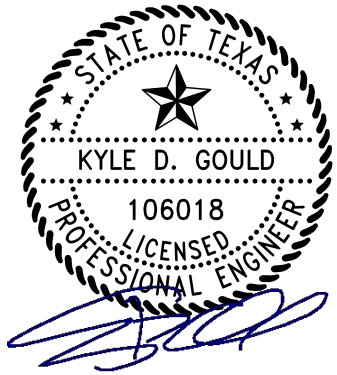

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2 CONSTRUCTION QUALITY ASSURANCE FOR EARTHWORK AND DRAINAGE AGGREGATES

2.1 Introduction

This section of the LQCP addresses the construction of the soil and drainage components of the liner system and outlines the LQCP program to be implemented with regard to materials selection and evaluation, laboratory test requirements, field test requirements, and treatment of problems.

The scope of earthwork and related construction quality assurance includes the following elements:

- Subgrade preparation
- Soil liner stockpile
- Soil liner placement
- General fill
- Drainage aggregates
- Anchor trench backfill

2.2 Composite Liner

The landfill is designed to include a Subtitle D composite liner for the undeveloped liner area. The liner system for the undeveloped area will consist of a 2-foot-thick compacted clay liner and a 60-mil-thick high-density polyethylene (HDPE) Flexible Membrane Liner (FML). A GCL may be used in lieu of the 2-foot-thick compacted clay liner.

The liner systems are detailed in Appendix IIIA – Landfill Unit Design Information. A structural stability analysis for the liner system, including calculations for anchor trench runout lengths, stress on the liner components, and an interface slope stability analysis, is included in Appendix IIIE – Geotechnical Report. A ballast demonstration for the liner system has been provided in Appendix IIID-B to demonstrate that the landfill cells will be adequately ballasted against potential uplift from groundwater.

- The reports will be signed and stamped by a professional engineer(s) licensed to practice in the state of Texas.

The as-built record drawings will accurately identify the constructed location of all work items, including the piping and anchor trenches. The POR will review and verify that as-built drawings are correct. As-built drawings will be included in the SLER, GCLER, and GLER as appropriate.

7.2 Reporting Requirements

The SLER, GCLER, and GLER will be signed and sealed by the POR and signed by the Site Manager and submitted in triplicate (including all attachments) to the MSW Permits Section of the Waste Permits Division of the TCEQ for review and acceptance. If the Executive Director provides no response, either written or verbal, within 14 days of receipt, the owner or operator may continue facility construction or operation. Any notice of deficiency received from the TCEQ will be promptly addressed and incorporated into the SLER/GCLER/GLER report. No solid waste will be placed over the constructed liner areas until the final acceptance is obtained from the TCEQ. Additionally, upon approval of this application if a new liner area is developed, prior to accepting any solid waste to the newly developed liner area, a pre-opening inspection will be requested. The TCEQ staff will conduct a pre-opening inspection within 14 days of the request. If the TCEQ does not provide a written or verbal response 14 days after conducting the pre-opening inspection, the newly developed liner area will be considered acceptable for solid waste placement, given that the SLER, GCLER, and GLER for the area are also submitted to the TCEQ in accordance with this section.

Title 30 TAC §330.341(d) requires that any constructed soil liner left uncovered or unprotected for a period of 6 months or longer must be inspected by the POR, and a letter report of findings be submitted to the executive director. The regulation also requires that any repairs be performed promptly, and a ~~new SLER~~ letter report documenting the repairs be submitted for the constructed soil liner requiring repairs. These requirements will be observed during and after soil liner construction.

~~If a layer of waste is not placed over the top of the installed protective cover within 6 months, then the POR will visually observe that the liner is not damaged (e.g., excessive erosion) due to prolonged exposure of the surface of the protective cover. Repairs will be done promptly, and the POR will report findings and measures taken to repair damage in a letter report to the executive director for review and acceptance.~~

An Interim Status Report will be prepared for any constructed liner that has received protective cover and waste has not been placed over the protective cover within six months of the initial placement of the protective cover. The liner will be

evaluated by the geotechnical POR and an Interim Status Report will be submitted to the TCEQ documenting the findings of the evaluation. If required, repairs to the liner and/or protective cover will be performed promptly and a report documenting the repairs will be submitted to the TCEQ.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

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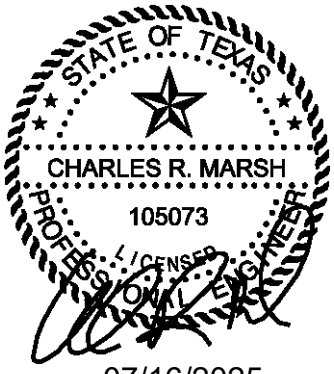

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CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIF
SURFACE WATER DRAINAGE PLAN

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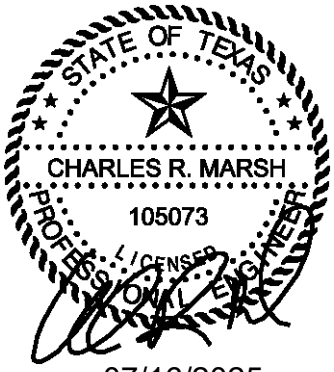

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- Removal of obstructions from drainage features.
- Removal of silt and sediment build-up from drainage features.
- Repairs to erosion and sedimentation controls.
- Installation of additional erosion and sedimentation controls.

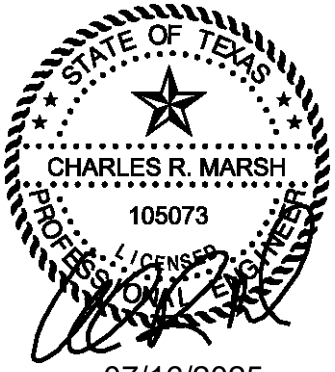
2.4 Floodplain

As a part of the proposed expansion, a CLOMR was prepared for the landfill area as the proposed development areas include the 100-year floodplain. The current effective FEMA Flood Insurance Rate Map for the area of the landfill is provided on Figure 4.6 and excerpts from the approved CLOMR and the FEMA approval letter are included in Appendix IIIF-G. The 100-year floodplain related design and demonstrations developed as part of this application meet the requirements set forth in 30 TAC §330.307. As shown in Appendix IIIF-G, the 100-year floodplain will be contained around the landfill footprint and will not encroach on the limit of waste. The CLOMR is currently under review by FEMA, and a copy of the approval letter will be incorporated into Appendix IIIF-G Excerpts from CLOMR once it is received.

APPENDIX IIIF-D

EROSION LAYER EVALUATION

Includes pages IIIF-D-1 through IIIF-D-33



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EROSION LAYER EVALUATION

This appendix presents the supporting documentation for evaluation of the thickness of the erosion layer for the final cover system at the City of Meadow Landfill. The evaluation is based on the premise of adding excess soil to increase the time required before maintenance is needed as recommended in the EPA Solid Waste Disposal Facility Criteria Technical Manual (EPA 530-R-93-017, November 1993).

The design procedure is as follows:

1. Minimum thickness of the erosion layer at the end of the 30-year postclosure period is evaluated based on the depth of frost penetration or 6 inches, whichever is greater (6 inches is the minimum thickness required by 30 TAC §330.457(a)(3)). For Terry County, the approximate depth of frost penetration is approximately 5 inches (see IIIF-D-17). The maximum frost depth for Terry County is 12 inches. Although frost depth is not specifically required by rule, a 12-inch thick (minimum) erosion layer is specified to protect the compacted clay/GCL infiltration layer. Note that the drainage geocomposite and 40 mil LLDPE geomembrane also provide further protection for the infiltration layer. As summarized in GSI White Paper 28, freeze thaw conditions will not adversely affect geomembrane sheets or their seaming. Therefore, the minimum erosion layer thickness is ~~6~~12 inches.

2. Soil loss is calculated using the Universal Soil Loss Equation (USLE) by following SCS procedures. The soil loss is adjusted by a safety factor of 2 and is then converted to a thickness. The thickness of the soil loss over a 30-year postclosure period is added to the minimum thickness of the erosion layer (from Step 1) to yield an initial thickness to be placed at closure of the site. According to the USLE, the typical 5 percent topslope and 25 percent side slope require a minimum of 6.121 inches, 6.91 inches, respectively, for the erosion layer. These USLE requirements include the 6-inch minimum required by regulations. Conservatively, a 12-inch erosion layer is proposed over final cover. These calculations begin on page IIIF-D-3.

3. Stormwater flows over the final cover system by (1) sheet flow over the topslope and sideslopes and (2) channelized flow in the drainage berms (or swales). As discussed in Section 2.2 and Appendix IIIF-C, flow also occurs in the letdown structures. The letdown structures are lined with gabions to prevent erosion given that the velocities in the letdowns are over 5 ft/sec.

Sheet flow velocities for the topslope and sideslope cases for a 25-year storm event are calculated to be less than permissible nonerosive velocities. A permissible nonerosive velocity is defined as 5.0 ft/sec or less. Calculated sheet flow velocities range from 0.92 to 1.34 ft/sec for topslope and sideslope cases. The supporting calculations are presented on pages IIIF-D-22 through IIIF-D-24.

Channelized flow for drainage swales is also calculated to be less than permissible nonerosive velocities. Calculated channelized flow velocities range from 2.42 to 3.22 ft/sec for the drainage swales. The supporting calculations are presented on pages IIIF-C-2 through IIIF-C-6.

4. Vegetation for the site will be native and introduced grasses with root depths of 6 inches to 8 inches. The erosion layer shall also include a mixture of Bermuda, vetch, rye, wheat grass, wild flowers, and flowering plants. The seeding is specified on the attached pages IIIF-D-28 through IIIF-D-34. The seeding is specified by TxDOT for temporary and permanent erosion control for Terry County, Texas (Lubbock).

5. Native and introduced grasses will be hydroseeded with fertilizer on the disked (parallel to contours) erosion layer upon final grading. Temporary cold weather vegetation will be established if needed. Irrigation will be employed for 6 to 8 weeks or until vegetation is well established. Erosion control measures such as silt fences and straw bales will be used to minimize erosion until the vegetation is established. Areas that experience erosion or do not readily vegetate after hydroseeding will be reseeded until vegetation is established or the soil will be replaced with soil that will support the grasses.

6. Slope stability information is included in Appendix IIIE.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
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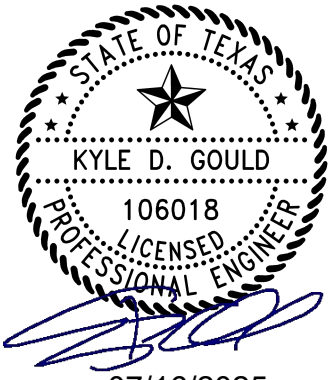

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CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ
CLOSURE PLAN

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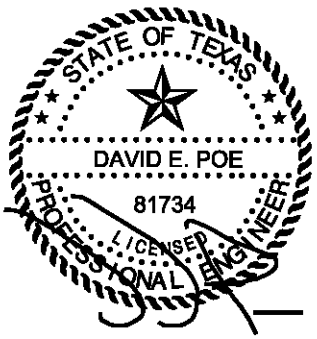

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2 FINAL COVER SYSTEM

2.1 Introduction

The final cover system for the City of Meadow Landfill has been developed to incorporate the requirements of Title 30 TAC §330.457(f)(4). The rules state that the owner or operator of an MSW landfill unit shall complete closure activities for the unit in accordance with the approved closure plan within 180 days following the initiation of closure activities (closure activities for MSW landfill units shall begin no later than 30 days after the date on which the unit receives the known final receipt of wastes, or, if the unit has remaining capacity and there is a reasonable likelihood that the unit will receive additional wastes, no later than one year after the most recent receipt of wastes). Closure will include installation of a final cover system and storm water runoff controls. The storm water runoff controls are addressed in Appendix IIIF – Surface Water Drainage Plan. The final cover system design is discussed below and is also detailed in Appendix IIIA-A. Cross-sections are provided in Appendix IIIA-B.

2.2 Final Cover System Design

The final cover system will consist of a composite final cover system for the Subtitle D areas. The final cover system will provide a low maintenance cover, protect against erosion, reduce rainfall percolation through the cover system and subsequently minimize leachate generation within the landfill. As depicted on Figure IIIJ-1 (and Drawing A.2 – Landfill Completion Plan in Appendix IIIA-A), a maximum slope of 5 percent is provided for the top slopes. Typical sideslopes of 4H:1V are provided to control erosion and facilitate drainage of the landfill.

Composite Final Cover System

- A 12-inch-thick earthen material erosion layer capable of sustaining vegetative growth. The vegetation will consist of native or introduced grasses, as well as a mixture of wild flowers, and other flowering plants capable of providing 80 percent coverage over the final cover. The minimum vegetation coverage of 80 percent will be established at closure and maintained throughout the post-closure care period.

4 SCHEDULE OF FACILITY FINAL CLOSURE

4.1 Final Closure Requirements

The site will be closed in an orderly fashion consistent with Title 30 TAC §330.457 and §330.461 implementing the following steps:

- No later than 90 days prior to initiation of final closure activities for the municipal solid waste landfill (MSWLF) facility, the Executive Director of TCEQ will be notified of the intent to close the facility and that a notice of the intent to close the unit has been placed in the operating record.
- No later than 90 days prior to initiation of final facility closure, a public notice of facility closure which contains the name, address, and physical location of the facility, the permit number, and the last date of intended receipt of waste, will be provided in the newspaper of the largest circulation in the vicinity of the facility. Meadow Landfill, LLC will also make available a copy of the approved final closure and postclosure plan at the landfill office for public access and review. Additional copies (as needed) of the closure and post-closure plans will be made available by owner for public access and review.
- Consistent with Title 30 TAC §330.461(b) and following notification of the Executive Director of TCEQ, a minimum of one sign will be posted at the main entrance and all other frequently used points of access for the facility notifying all persons utilizing the facility of the closure date or date after which further receipt of waste is prohibited. In addition, access control is provided by perimeter fencing and a locked gate following the closure date to prevent unauthorized disposal or dumping of solid waste at the facility.
- Final closure activities will commence for the MSWLF facility no later than 30 days after the date the MSWLF facility receives the known final receipt of wastes. If the MSWLF facility has remaining capacity and there is a reasonable likelihood that the MSWLF facility will receive additional wastes, final closure activities will commence no later than 1 year after the most recent receipt of wastes. The timeline for commencement of closure activities as described in this section is applicable to the Liquid Waste Bulking Facility (Section 3.4) and Citizens Convenience Center (Section 3.5). The timeline for commencement of decommissioning and demolition of the leachate storage tanks, evaporation ponds and piping is set forth in Section 3.5 of this appendix.
- Final closure activities of the MSWLF facility will be completed in accordance with the Closure Plan (this appendix) within 180 days following the initiation of closure activities as defined in Title 30 TAC §330.457(f)(3) and will include closure of all facilities described in Section 3 of this appendix. If necessary, as noted in Title 30 TAC §330.457(f)(4), a request for an extension of the completion of final closure activities may be submitted and granted by the

Executive Director. The request will include all applicable documentation necessary to demonstrate that final closure will take longer than 180 days and all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed site.

- Final closure activities and timelines, as described in this section, will include decommissioning and closure of the Liquid Waste Bulking Facility and the Citizens Convenience Center (as described in Sections 3.4 and 3.5 of this section, respectively). As described in Section 3.3 of this section, the leachate storage tanks, evaporation ponds and piping will remain operational (as required) during the postclosure period and will be demolished and the debris disposed at a permitted disposal facility at the time the postclosure period has ended and the TCEQ has approved the cessation of postclosure care of the facility.

- Following completion of final closure activities of the MSWLF unit, the facility will comply with the post-closure care requirements specified in Title 30 TAC §330.463(b). Within ten days after completion of final closure activities, a documented certification, signed by an independent licensed professional engineer, will be submitted to the Executive Director of the TCEQ for review and approval. This certification will verify that final closure has been completed in accordance with the approved final closure plan and will include all applicable documentation necessary for certification of final closure. Once approved, this certification will be placed in the Site Operating Record.

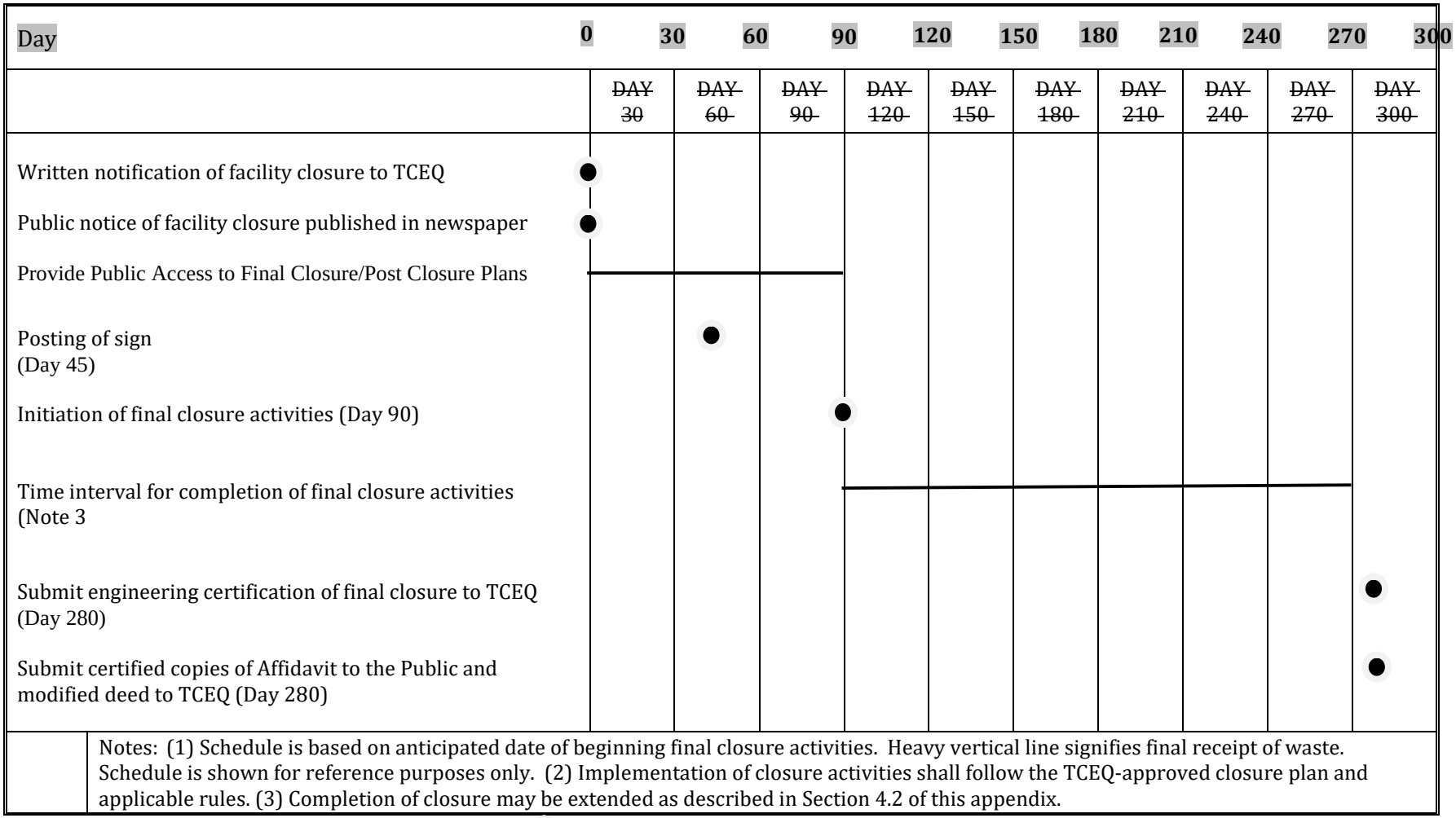
- Within 10 days after completion of final closure activities of the facility, a certified copy of an Affidavit to the Public (most current format provided by the TCEQ will be used) will be submitted to the Executive Director of the TCEQ by registered mail and placed in the facility's site operating record. In addition, a certified notation will be recorded on the deed to the facility that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill facility and the use of the land is restricted according to the provisions specified in Section 4 of Appendix IIIK – Postclosure Care Plan. Within 10 days after completion of final closure activities of the facility, a certified copy of the modified deed will be submitted to the Executive Director and placed in the operating record.

Following receipt of the required final closure documents and an inspection report from the TCEQ Regional Office verifying proper closure of the MSWLF facility according to this Closure Plan (this appendix), the Executive Director may acknowledge the termination of operation and closure of the facility and deem it properly closed. The steps in the closure process are depicted on Figure IIIJ-3 – Final Closure Schedule. Consistent with Title 30 TAC §330.461(c)(2), a professional engineer certification will be submitted to TCEQ within 10 days of completion of closure. In accordance with Title 30 TAC §330.463(b), the postclosure care period begins immediately upon the date of final closure.

4.2 Provisions for Extending Closure Period

If the City of Meadow Landfill has remaining capacity at the time of its closure, final closure activities will begin no later than one year after the most recent receipt of wastes. A request for an extension beyond the one-year deadline for the initiation of final closure may be submitted to the Executive Director for review and approval and will include all applicable documentation to demonstrate that the unit or site has the capacity to receive additional waste, and that the City of Meadow Landfill has taken all steps necessary to prevent threats to human health and the environment.

City of Meadow Landfill
Figure IIIJ-2 – Final Closure Schedule



CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
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PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ-A
FINAL COVER SYSTEM QUALITY CONTROL PLAN

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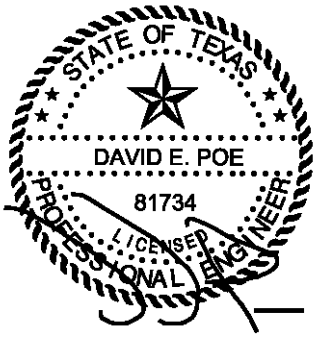

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Table 3-1
Required Testing and Properties for GCL Materials[1]

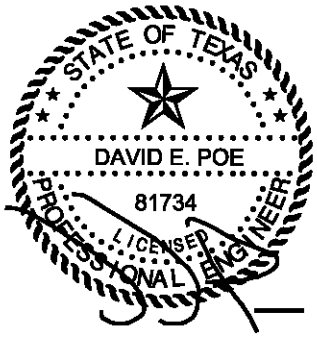
Tester	Test[11]	Property	Required Values	Standard Test Method	Frequency of Testing[9]
Supplier or GCL Manufacturer	Bentonite[2]	Free Swell (ml/2g)	≥24	ASTM D 5890	Per 50 tons and every truck or railcar
		Fluid Loss (ml)	≤18	ASTM D 5891	
	Geotextile	Mass Unit/Unit Area (oz/sy)	≥5.9/3	ASTM D 5261	per 200,000 ft^2
		Tensile Strength at Break[3] (%)	≥65	ASTM D 6768	
GCL Manufacturer's	GCL Product	Clay Mass/Unit Area[4] (lb/sf)	≥0.75	ASTM D 5993	per 40,000 ft^2
		Bentonite Moisture Content[2] (%)	≤35	ASTM D 5993	
		Tensile Strength[6] (lb/in)	≥23	ASTM D 6768	per 200,000 ft^2
		Permeability[2,5] (cm/s)	≤5x10^{-9}	ASTM D 5887	Per week for each production line
		Lap Joint Permeability[2](cm/s)	≤5x10^{-9}	Flow box or other suitable device	Per GCL adjoining material and lap type[7]
Independent Laboratory (Conformance Testing)	GCL Product	Clay Mass/Unit Area (lb/sf)	≥0.75	ASTM D 5993	Per 100,000 ft^2
		Permeability[7] (cm/s)	≤5x10^{-9}	ASTM D 5887	
		Direct Shear[8]	Refer to Section 6 for required values		

[1] Tests and required values are developed using GRI – GCL3 – Test Methods, Required Properties, and Testing Frequencies of Geosynthetic Clay Liners (GCLs) – see also Note 10.
[2] ~~Tests to be performed on bentonite before incorporation into GCL. These values are maximum; all others are minimum.~~ Not used.
[3] The geotextiles in their as-received condition are evaluated by incubation in a forced air oven set at 60° C for 50 days, per ASTM D 5721. If individual yarns are used in reinforcing GCLs, they must also meet this same endurance criterion.
[4] Bentonite is measured after oven drying per the stated test method.
[5] Report last 20 permeability values, ending on production date of supplied GCL.
[6] May also be performed as conformance testing.
[7] Test at confining/consolidating pressures simulating field conditions for ASTM D 5887.
[8] Not applicable for slopes of 7H:1V or flatter. Testing must be on material in hydrated state unless GCL is to include geomembrane on both sides of GCL, and must use strain rates, confining pressures, and other parameters which simulate field conditions. Only reinforced GCL (bentonite encapsulated between two geotextiles, one nonwoven and one woven, which are needle punched together) will be used for final cover.
[9] Testing frequency is based on GRI-GCL3.
[10] Sampling of GCL products for laboratory testing will be in accordance with ASTM D 6072.

APPENDIX IIIJ-A-A

FINAL COVER DRAINAGE LAYER DESIGN

Includes pages IIIJ-A-A-1 through IIIJ-A-A-51



07/16/2025

		CLOSED SIDESLOPE (25%)	CLOSED TOPSLOPE (5%)	CLOSED SIDESLOPE TRANSITION	CLOSED TOPSLOPE TRANSITION
GENERAL	Case No.	1	2	3	4
INFORMATION	Output Page	IIIJ-A-A-18	IIIJ-A-A-25	IIIJ-A-A-32	IIIJ-A-A-39
	No. of Years	30	30	30	30
	Ground Cover	GOOD	GOOD	GOOD	GOOD
	SCS Runoff Curve No.	82.4	80.6	81.7	81.3
	Model Area (acre)	1.0	1.0	1.0	1.0
	Runoff Area (%)	100	100	100	100
	Maximum Leaf Area Index	4.5	4.5	4.5	4.5
	Evaporative Zone Depth (inch)	12	12	12	12
EROSION	Thickness (in)	12	12	12	12
LAYER	Porosity (vol/vol)	0.3980	0.3980	0.3980	0.3980
(Texture = 10)	Field Capacity (vol/vol)	0.2440	0.2440	0.2440	0.2440
	Wilting Point (vol/vol)	0.1360	0.1360	0.1360	0.1360
	Init. Moisture Content (vol/vol)	0.2440	0.2440	0.2440	0.2440
	Hyd. Conductivity (cm/s)	1.2E-04	1.2E-04	1.2E-04	1.2E-04
DRAINAGE	Thickness (in)	0.250	0.250	0.250	0.250
LAYER	Porosity (vol/vol)	0.8500	0.8500	0.8500	0.8500
(Texture = 0)	Field Capacity (vol/vol)	0.0100	0.0100	0.0100	0.0100
	Wilting Point (vol/vol)	0.0050	0.0050	0.0050	0.0050
	Init. Moisture Content (vol/vol)	0.0100	0.0100	0.0100	0.0100
	Hyd. Conductivity (cm/s)	19.43	6.63	19.43	6.63
	Slope (%)	25	5	25	5
	Slope Length (ft)	140	350	270	185
FLEXIBLE	Thickness (in)	0.04	0.04	0.04	0.04
MEMBRANE	Hyd. Conductivity (cm/s)	4.0E-13	4.0E-13	4.0E-13	4.0E-13
LINER	Pinhole Density (holes/acre)	0	0	0	0
(Texture = 36)	Install. Defects (holes/acre)	0	0	0	0
	Placement Quality	GOOD	GOOD	GOOD	GOOD
INFILTRATION	Thickness (in)	18	18	18	18
LAYER	Porosity (vol/vol)	0.4270	0.4270	0.4270	0.4270
(Texture = 0)	Field Capacity (vol/vol)	0.4180	0.4180	0.4180	0.4180
	Wilting Point (vol/vol)	0.3670	0.3670	0.3670	0.3670
	Init. Moisture Content (vol/vol)	0.4270	0.4270	0.4270	0.4270
	Hyd. Conductivity (cm/s)	1.0E-05	1.0E-05	1.0E-05	1.0E-05
PRECIPITATION	Average Annual (in)	17.93	17.93	17.93	17.93
RUNOFF	Average Annual (in)	0.360	0.224	0.323	0.260
EVAPOTRANSPIRATION	Average Annual (in)	16.59	16.60	16.62	16.57
LATERAL	Average Annual (cf/year)	3,692	4,137	3,725	4,138
DRAINAGE COLLECTED[1]	Peak Daily (cf/day)	2,908	4,858	3,067	4,677
LATERAL DRAINAGE	Peak Daily (in)	0.801	1.338	0.845	1.288
~~DEPTH~~ COLLECTED	Peak Daily (ft)	0.067	0.112	0.070	0.107
HEAD ON FINAL	Average Annual (in)	0.000	0.003	0.000	0.001
COVER GEOMEMBRANE[2]	Peak Daily (in)	0.008	8.931	0.017	0.949

[1] This is the lateral drainage collected in the drainage geocomposite in the final cover system.

[2] Infinite slope stability analysis for the final cover system was performed assuming a maximum hydraulic head of 12 inches, which is greater than the peak daily value shown in the table and hence conservative. The infinite slope stability analysis for the final cover is presented in Appendix IIIE-A-4.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

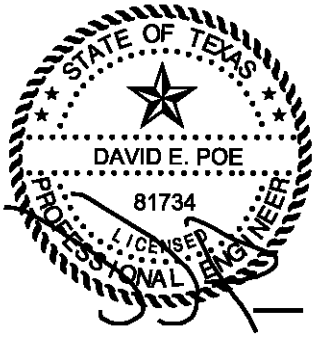
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ-B
GCL ALTERNATIVE FINAL COVER DEMONSTRATION

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



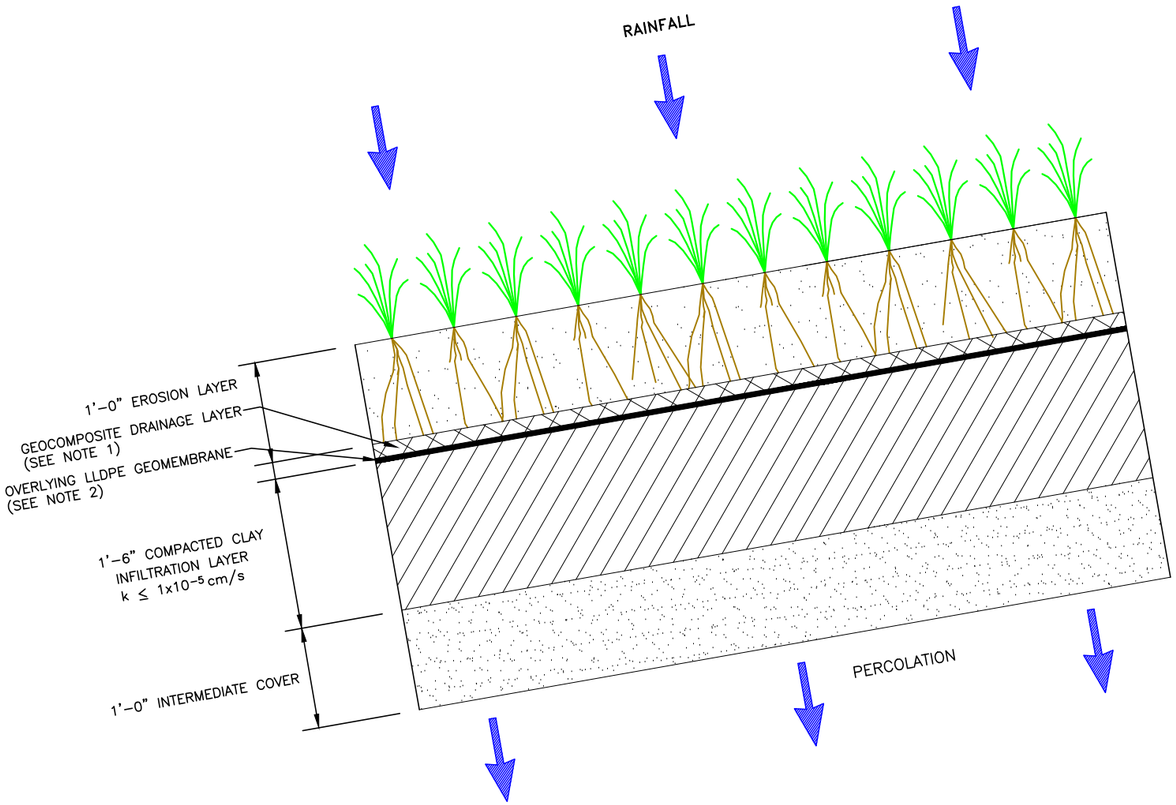
07/16/2025

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WBC Project No. 0120-809-11-05

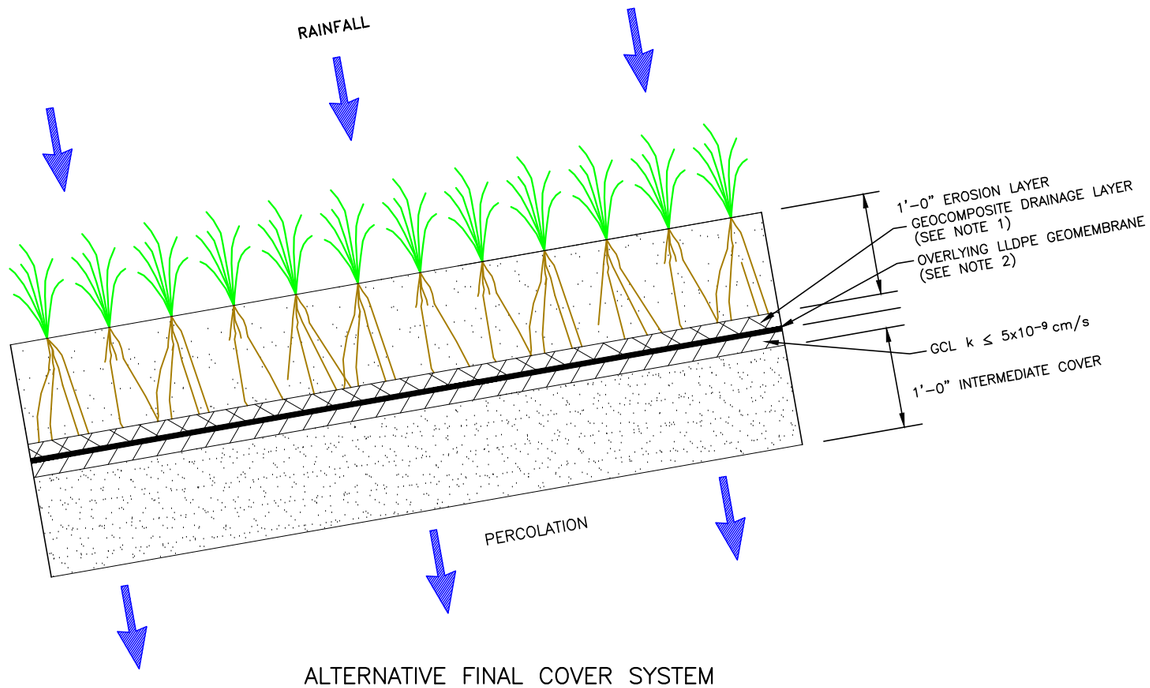
AVERAGE ANNUAL RAINFALL = 17.93 IN/YEAR



COMPOSITE FINAL COVER SYSTEM

	TOP SLOPE	SIDE SLOPE
AVERAGE ANNUAL PERCOLATION (IN/YEAR)=	0.00008	0.00000
PEAK DAILY PERCOLATION (IN/DAY)=	0.00035	0.000000

1



ALTERNATIVE FINAL COVER SYSTEM

	TOP SLOPE	SIDE SLOPE
AVERAGE ANNUAL PERCOLATION (IN/YEAR)=	0.00000	0.00000
PEAK DAILY PERCOLATION (IN/DAY)=	0.000006	0.000000

NOTES:

1. THE FINAL COVER GEOCOMPOSITE DRAINAGE LAYER DESIGN IS INCLUDED IN APPENDIX IIIJ–A–A AND DESIGN CONSISTS OF SINGLE–SIDED GEOCOMPOSITE FOR THE TOP SLOPES AND DOUBLE–SIDED GEOCOMPOSITE FOR THE SIDE SLOPES.
2. THE OVERLYING LLDPE GEOMEMBRANE LINER DESIGN CONSISTS OF SMOOTH OR TEXTURED 40–MIL LLDPE FOR THE TOP SLOPES AND TEXTURED 40–MIL LLDPE FOR THE SIDE SLOPES.
3. THIS GRAPHIC IS DEVELOPED TO COMPARE THE COMPOSITE FINAL COVER SYSTEM AND ALTERNATIVE FINAL COVER SYSTEM PERCOLATION RATES THROUGH THE BOTTOM OF THE INFILTRATION AND GCL LAYERS, RESPECTIVELY.

LEGEND

1 INDICATES REVISION (SEE LIST OF REVISIONS)

LIST OF REVISIONS:

1. UPDATED SIDE SLOPE PERCOLATION RATES.

STATE OF TEXAS
DAVID E. POE
81734
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120–076–11
CAD: FIG IIIJ–B.1–DEMO. COMPARISON.DWG
DRAWN BY: JDW
DESIGN BY: BPY
REVIEWED BY: DEP

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS

NO.	DATE	DESCRIPTION
1	02/2025	1ST TCEQ COMMENT RESPONSE
2	07/2025	SEE LIST OF REVISIONS

MAJOR PERMIT AMENDMENT
ALTERNATIVE FINAL COVER DEMONSTRATION COMPARISON

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIJ–B.1

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

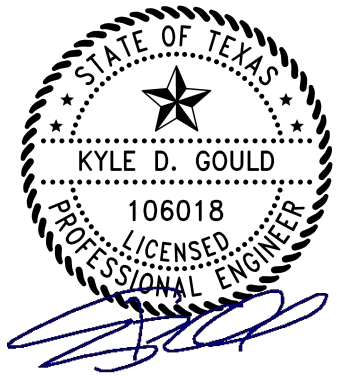
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIL
CLOSURE AND POSTCLOSURE CARE COST ESTIMATES

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

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6420 Southwest Boulevard, Suite 206
Fort Worth, TX 76109
817-735-9770

WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.

TABLE 1
CITY OF MEADOW LANDFILL - CLOSURE COST

Area Requiring Final Cover	45.0	ac				
Trench Final Cover Area	45.0	ac	Infiltration Layer Thickness	1.50 ~~45.0~~	ft (Trench Area	
Composite Topslope Area	0.0	ac	Infiltration Layer Thickness	1.50 ~~0.0~~	ft (Comp. Area)	
Composite Sideslope Area	0.0	ac	Erosion Layer Thickness	0.5 ~~0.0~~	ft (Trench Area	
Permit Boundary Area	337.9	ac	Erosion Layer Thickness	1.0 ~~338~~	ft (Comp. Area)	

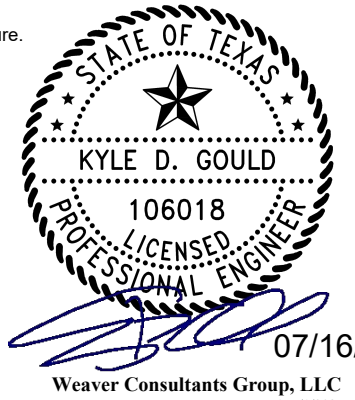
Description	Quantity	Unit[1]	2024 Unit Cost[2]	Inflation Factor[3]	2024 Unit Cost	Proposed Total (2024)
1.0 ENGINEERING						
1.1 Topographic Survey	1	LS	$ 5,180	1.000	$ 5,180	$ **5,180**
1.2 Boundary Survey for Affidavit	337.9	AC	$ 67	1.000	$ 67	$ **22,754**
1.3 Site Evaluation	337.9	AC	$ 730	1.000	$ 730	$ **246,795**
1.4 Development of Plans	45	AC	$ 616	1.000	$ 616	$ **27,739**
Subtotal						$ **302,468**
1.5a Contract Administration	1	5%		1.000		$ **15,123**
1.5b Admin. Cost for Certification of Final Cover and Affidavit to the Public	1	5%		1.000		$ **15,123**
1.6 Closure Inspection	45.0	AC	$ 1,886	1.000	$ 1,886	$ **84,848**
1.7 TPDES and other Permits	1	LS	$ 7,252	1.000	$ 7,252	$ **7,252**
1.8 Additional Costs						$ -
1.9 ENGINEERING COSTS SUBTOTAL						$ **424,816**
2.0 CONSTRUCTION[4]						
2.1 Mobilization of Personnel and Equipment		5%	of Item 1.9			$ **21,241** $ -
2.2 Final Cover System						$ -
2.2.1 Final Cover - Side Slope Cover - Not Used						$ -
2.2.2 Final Cover - Top Slope Cover						$ -
2.2.2a Infiltration Layer - Compacted Clay	108,900	CY	$ 6.01	1.000	$ 6.01	$ **654,489**
2.2.1g Erosion Layer	36,300	CY	$ 3.89	1.000	$ 3.89	$ **141,207**
2.2.1h Vegetation	45.0	AC	$ 1,031	1.000	$ 1,031	$ **46,387**
2.3 Site Grading	45.0	AC	$ 1,715	1.000	$ 1,715	$ **77,156**
2.4 Site Fencing and Security	-	LF	$ -	1.000	$ -	$ -
2.5 Landfill Gas Monitoring and Control System	-	Wells	$ -	1.000	$ -	$ -
2.6 Groundwater Monitoring System	24	Wells ~~LS~~	$30,000 ~~$ -~~	1.000	$ 30,000 ~~$ -~~	$ **720,000** $ -
2.7 Leachate Management	-	LS	$ -	1.000	$ -	$ -
2.8 Stormwater Management	-	LS	$ -	1.000	$ -	$ -
2.9 Additional Construction Cost Items						
2.10 CONSTRUCTION COSTS SUBTOTAL						$ **1,660,480** $ ~~919,239~~
3.0 STORAGE AND PROCESSING UNIT CLOSURE COSTS						-
4.0 SUM OF CLOSURE COST SUBTOTALS						$ **2,085,296** $ ~~1,344,055~~
5.0 CONTINGENCY		10%	of Item 4			$ **208,530** $ ~~134,405~~
6.0 CONTRACT PERFORMANCE BOND		2.0%	of Item 4			$ **41,706** $ ~~26,881~~
7.0 THIRD PARTY ADMINISTRATION AND PROJECT MANAGEMENT COSTS		2.5%	of Item 4			$ **52,132** $ ~~33,601~~
8.0 TOTAL CLOSURE COST						$ **2,387,663** $ ~~1,538,943~~

[1] N/A = not applicable, LS = lump sum, AC = acres, CY = cubic yards, SF = square feet.

[2] Unit Costs are in 2024 dollars. Unit costs are based on current market conditions, typical engineering costs and industry standards related to construction, and reflect input from Republic Services and Weaver Consultants Group, LLC.

[3] Inflation factor is a product of the annual percentage change for each year as published by the TCEQ. Inflation factor will be used during future updating of CPC Cost Estimates.

[4] Table will be expanded in the future to incorporate additional line items for new components that are required for landfill closure.



07/16/2025

4 COST ESTIMATE ADJUSTMENTS

During the active life of the site, Meadow Landfill will annually adjust the cost estimates for inflation and for changes to the facility conditions that increase the cost of closure. The adjustment may be made by recalculating the maximum costs of closure and postclosure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commence in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. The first adjustment is made by multiplying the closure and postclosure cost estimates by the inflation factor. The result is the adjusted closure and postclosure cost estimates. Subsequent adjustments are made by multiplying the latest adjusted closure and postclosure estimates by the latest inflation factor.

An increase in the closure or postclosure cost estimate and the amount of financial assurance will be made if changes to the final closure or postclosure care plan or the landfill conditions increase the maximum cost. If only the maximum area requiring closure changes (i.e., increases due to liner construction), a permit modification to change the closure and postclosure care cost estimates will be submitted to TCEQ.

A reduction in the closure or postclosure care cost estimate and the amount of financial assurance may be submitted if the cost estimate exceeds the maximum costs of closure at any time during the remaining life of the unit or postclosure care remaining over the postclosure care period. Meadow Landfill, LLC, will submit written notice to the Executive Director of the detailed justification for the reduction of the cost estimates and the amount of financial assurance. A reduction in the cost estimate and financial assurance will be considered a permit modification and will not take effect until the permit modification has been submitted and approved by the Executive Director.

In the event that the facility were to enter into corrective action during the postclosure period, Meadow Landfill, LLC, will submit a corrective action cost estimate to the TCEQ in accordance with Title 30 TAC §330.509.

In accordance with Title 30 TAC §330.503 and §330.507, the closure and post-closure cost estimates will be reviewed and updated on an annual basis if the facility's permit conditions have changed (e.g, that the areas requiring closure or post-closure care do not match the current estimate, inflation costs), or if the landfill conditions increase the maximum cost of closure or post-closure (e.g., new cell construction, storage or processing units addition or revisions) at any time during the remaining active life of the unit. In accordance with Title 30 TAC §330.503(a) and §330.463(b)(3)(D), evidence of any additional financial assurance resulting from the annual revision of cost-estimates will be provided to the TCEQ.

TABLE 2
CITY OF MEADOW LANDFILL - POST-CLOSURE CARE COST

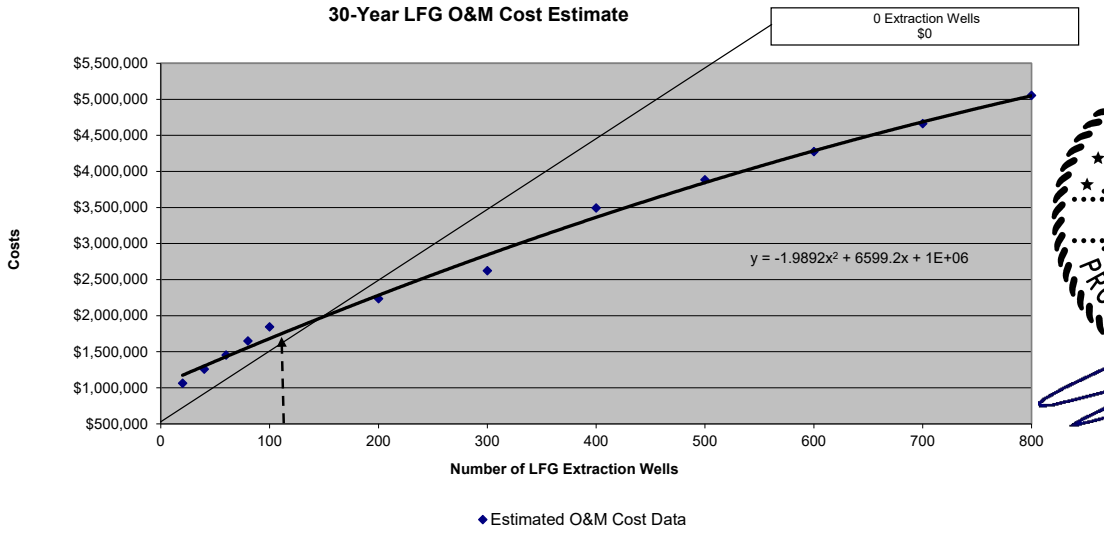
Permitted Waste Footprint	210.7	ac	Solid Waste Fill Area	45	
Area with leachate collection system	0	ac	Post Closure Care Period	30	
Groundwater Monitoring Wells	0	wells	Gas Monitoring Events	4	
Gas Probes	2	probes	GW Monitoring Events	2	
Area to be administratively closed	337.9	ac	Leachate Generation	0	

Description			Quantity	Unit[1]	2024 Unit Cost[2]	Inflation Factor[3]	2024 Unit Cost	
1.0	**ENGINEERING**							
1.1	Site Inspection and Recordkeeping (annual)		337.9	AC	$ 10.00	1.000	$ 10.00	$ 3,379
1.2	Correctional Plans and Specifications (annual)		337.9	AC	$ 14.00	1.000	$ 14.00	$ 4,731
1.3	Site Monitoring							
	1.3.1	Groundwater Monitoring System						
		1.3.1(a) Groundwater Monitoring (semiannual)	-	WELLS	$ -	1.000	$ -	$ -
	1.3.2	LFG Monitoring System						
		1.3.2(a) LFG Monitoring (quarterly)	4	EA	$ 350	1.000	$ 350	$ 1,400
		1.3.2(b) LFG Plugging and Abandonment	-	WELLS	$ -	1.000	$ -	$ -
	1.3.3	Surface Water Monitoring (quarterly)						
		1.3.3(a) Surface Water Monitoring (quarterly)	-	EA	$ -	1.000	$ -	$ -
1.4	Additional Engineering Cost Items							$ -
1.5	**ENGINEERING SUBTOTAL**							**$ 9,510**
2.0	**CONSTRUCTION / MAINTENANCE**							
2.1	Cap and Sideslope Repairs and Revegetation		45	AC	$ 210	1.000	$ 210	$ 9,450
2.2	Mowing and Vegetation Management		1	LS	$ 5,500	1.000	$ 5,500	$ 5,500
2.3	Groundwater Monitoring System Maintenance		0	LS	$ -	1.000	$ -	$ -
2.4	LFG Monitoring Probes Maintenance		0	LS	$ -	1.000	$ -	$ -
2.5	LFG Collection System Operations and Maintenance		0	LS	$ -	1.000	$ -	$ -
2.6	Perimeter Fence and Gates Maintenance		1	LS	$ 1,200	1.000	$ 1,200	$ 1,200
2.7	Access Roads Maintenance		1	LS	$ 2,000	1.000	$ 2,000	$ 2,000
2.9	Additional Construction and Maintenance Cost Items		-	-	-			
2.10	**CONSTRUCTION AND MAINTENANCE COSTS SUBTOTAL**							**$ 18,150**
3.0	**LEACHATE MANAGEMENT SYTEM OPERATION/MAINTENANCE/DISPOSAL**							
3.1	Leachate Management System Operation and Maintenance		0	LS	$ -	1.000	$ -	$ -
3.2	Leachate Disposal		0.0	AC	$ -	1.000	$ -	$ -
3.4	Additional Leachate Management Cost Items							$ -
3.5	**LEACHATE MANAGEMENT COSTS SUBTOTAL**							**$ -**
4.0	**SUM OF ENGINEERING, CONSTRUCTION, AND LEACHATE MANAGEMENT COSTS**							**$ 27,660**
5.0	**CONTINGENCY**			10%	of Item 4			**$ 2,766**
6.0	**THIRD PARTY ADMINISTRATION AND PROJECT MANAGEMENT**			2.5%	of Item 4			**$ 691**
7.0	**TOTAL POST-CLOSURE COST**							
7.1	**TOTAL ANNUAL POST-CLOSURE COST**							**$ 31,117**
7.2	**30 YEAR POST-CLOSURE COSTS**							**$ 933,512**

[1] N/A = not applicable, LS = lump sum, AC = acres, CY = cubic yards, SF = square feet, GAL = gallon, EA = Each

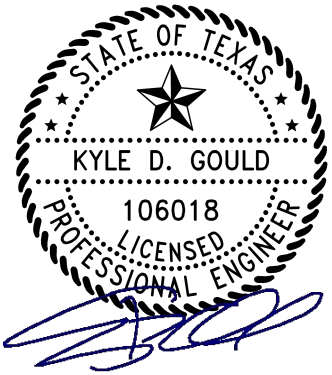
[2] Unit Costs are in 2024 dollars. Unit costs are based on current market conditions, typical engineering costs and industry standards related to construction, and reflect input from Republic Services and Weaver Consultants Group, LLC.

[3] Inflation factor is a product of the annual percentage change for each year as published by the TCEQ. Inflation factor will be used during future updating of CPC Cost Estimates



APPENDIX IIIL-A

CLOSURE COST ESTIMATE FORM FOR MUNICIPAL SOLID WASTE TYPE I LANDFILL (FORM 20721)



07/16/2025

Texas Commission on Environmental Quality

Closure Cost Estimate Form for Municipal Solid Waste Type I Landfills

This form is for use by applicants or site operators to provide cost estimates for closure of MSW Type I landfills to meet the requirements in 30 Texas Administrative Code (TAC) Chapter 330, Section 330.63(j) and 30 TAC Chapter 330 Subchapter L. The costs to be provided herein are cost estimates for hiring a third party to close the largest waste fill area that could potentially be open in the year to follow and those areas that have not received final cover. If you need assistance in completing this form, please contact the MSW Permits Section in the Waste Permits Division at (512) 239-2335.

Facility Name: City of Meadow Landfill

MSW Permit No.: 2293C

Site Operator/Permittee Name and Mailing Address: Meadow Landfill, LLC, 663 County Road 545, Meadow, TX 79345

Total Closure Cost Estimate (2024 Dollar Amount): ~~$1,538,943~~ $2,387,663

I. Professional Engineer's Statement, Seal, and Signature

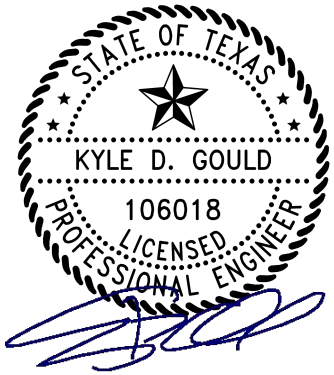
I am a licensed professional engineer in the State of Texas. To the best of my knowledge, this Closure Cost Estimate has been completed in substantial conformance with the facility Closure Plan and, in my professional opinion, is in compliance with Title 30 of the Texas Administrative Code, Chapter 330.

Name: Kyle D. Gould Title: Senior Engineer

Date: ~~2/2025~~ 7/2025

Company Name: Weaver Consultants Group, LLC Firm Registration Number: F-3727

Professional Engineer's Seal



07/16/2025

Professional Engineer's Signature

II. Annual Review of Permit Conditions, Cost Estimates, Inflation Factor, and Financial Assurance

The permittee/site operator acknowledges that he/she will:

(1) Review the facility's permit conditions on an annual basis and verify that the current active and inactive waste fill areas of the landfill match the areas on which closure cost estimates are based.

(2) Request in writing via a permit modification application for an increase in the closure cost estimate and the amount of financial assurance provided if changes to the closure plan or the landfill conditions increase the maximum cost of closure at any time during the remaining active life of the landfill.

(3) Request in writing via a permit modification application for a reduction in the cost estimate and the amount of financial assurance provided if the cost estimate exceeds the maximum cost of closure at any time during the remaining active life of the landfill. The permit modification application will include a description of the situation and a detailed justification for the reduction of the closure cost estimate and the amount of financial assurance.

(4) Establish financial assurance for closure of the unit in an amount no less than the current closure cost estimate in accordance with 30 TAC Chapter 37, Subchapter R.

(5) Adjust the current cost estimate for inflation within 60 days prior to the anniversary date of the first establishment of the financial assurance mechanism.

(6) Provide annual inflation adjustments to the closure costs and financial assurance during the active life of the facility, until the facility is officially placed under the post closure care period and all requirements of the final closure plan have been approved in writing by the TCEQ executive director. The adjustment will be made using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business, as specified in paragraphs (1) and (2) of 30 TAC §37.131. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(7) Provide continuous financial assurance coverage for closure until the facility is officially placed under the post-closure care period.

III. Description of the Closure Cost Estimates Worksheet

The following descriptions of the items on the closure cost estimates worksheet provide guidance for identifying the minimum work or cost elements and estimating the unit or lump sum cost of each item as applicable. Enter additional detail for each item in the field following the item as necessary and as site-specific condition warrants. The cost items are grouped under closure costs for engineering, construction, and storage and processing units. Include attachments to detail any additional work and associated costs necessary to close the site that is not already included as a line item on the worksheet. Reference the attachments and list the work or cost items in the fields under "Additional Engineering Cost Items Not Listed on the Worksheet," "Additional Construction Cost Items Not Listed on the Worksheet," or "Additional Storage and Processing Units Items Not Listed on the Worksheet" as applicable. Provide the total cost of the additional work or cost items in each cost category on the worksheet line that precedes the cost subtotal for each cost group.

1. Engineering Costs

The engineering tasks have been subdivided into seven items and are described below. Other related costs may be added as site-specific issues warrant.

1.1. Topographic Survey

A topographic survey will be required to verify the existing elevation and slopes of the landfill to ensure conformance with the final cover system, drainage system, and final grading designs.

Enter additional topographic survey work or cost element details as site-specific conditions warrant: **$5,180**

1.2. Boundary Survey

The metes and bounds description is required for filing of the affidavit of closure and deed recording of any area of the site which has received waste. Other activities to be included here are publication of the public notice of closing activities.

Enter additional boundary survey work or cost element details as site-specific conditions warrant: **$22,754**

1.3. Site Evaluation

The evaluation includes a site inspection to identify waste disposal areas, analyze drainage and erosion protection needs, and to determine other site operational features that are not in compliance with the permit. The site evaluation also includes verifying the need for new or relocation of existing groundwater monitoring wells and landfill gas monitoring probes, analysis of groundwater samples, and review of site operating record. The third party consultant who performed the site evaluation will prepare and submit an engineering report to the executive director to document the status of the site. The report will identify all areas of work and the associated implementation

costs necessary to safely close the landfill operations with recommendations on how to fulfill these needs.

Enter additional site evaluation work or cost element details as site-specific conditions warrant: **$246,795**

1.4. Development of Plans

The final closure, plan the final cover system design and specifications, grading and drainage plans, specification for revegetation, design of any other improvements to bring the site into compliance with the permit, the closure schedule, and coordination with the TCEQ and provision of closure notice to the public.

Enter additional development of plans work or cost element details as site-specific conditions warrant: **$27,739**

1.5. Contract Administration (bidding and award)

The third-party consultant will advertise the project, receive the bids, evaluate the bids, award the closure construction contract and administer the contract during construction.

Enter additional contract administration work or cost element details as site-specific conditions warrant: **$30,246**

1.6. Closure Inspection and Testing

The professional of record will observe closure construction, perform cover thickness and permeability verification, and prepare an evaluation report upon completion of closure.

Enter additional closure inspection or testing work or cost element details as site-specific conditions warrant: **$84,848**

1.7. TPDES and other Permits

The third-party consultant will prepare plans, specifications, and other documents necessary for compliance with applicable federal and state laws and requirements, including the Clean Water Act, for the proper closure of the site.

Enter additional TPES or other permits work or cost element details as site-specific conditions warrant: **$7,252**

1.8. Additional Engineering Cost Items Not Listed on the Worksheet

List the Attachment(s) detailing any additional engineering cost items necessary to close the site that is not already included as a line item on the worksheet:
Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional engineering cost items in the "Cost" column.

Groundwater Monitoring Well Consultant : NA

The existing groundwater monitoring system is adequate. There should be no cost associated with this item.

1.9. Engineering Costs Subtotal: $424,816

1.9.1. Enter the sum of engineering costs in Items 1.1 through 1.8.

2. Construction Costs

Closure construction costs include those for construction of the final cover system, site grading, and drainage improvements. Other costs may be added as site-specific issues warrant.

2.1. Mobilization

2.1.1. Mobilization of Personnel and Equipment

The cost of mobilizing personnel and construction heavy equipment must be included as part of the construction costs.

Enter additional work or cost element details for mobilization of personnel and equipment as site-specific conditions warrant:

~~**Included in overall cost of construction work.**~~

5% of engineering costs = $21,241

2.2. Final Cover System

The owner or operator must install a final cover system that is designed to minimize infiltration and erosion. The final cover system is subdivided into the sideslope cover and cap cover with their associated components to facilitate cost calculations. If an alternative final cover is proposed, the closure cost estimate will still be based on a design that utilizes the conventional composite cover system.

Enter additional final cover system work or cost element details as site-specific conditions warrant: $~~795,696~~842,083 – ~~Included in item 2.1A and 2.1B on Table 1~~ Includes Line Items 2.2.2a, 2.2.1g, and 2.2.1h.

2.2.1. Side Slope Cover

~~Enter information for Items 2.2.1a through 2.2.1h.~~ Not used – trench fill area no sideslope.

2.2.2. Top Slope Cover

~~Enter information for Items 2.2.2a through 2.2.2h.~~ No composite topslope at the site, trench fill areas only.

2.2.3. Cells for Class 1 Nonhazardous Industrial Waste

2.3. Site Grading

Site grading includes the final grading of the site, including the landfill cap and sideslopes.

Enter additional site grading work or cost element details as site-specific conditions warrant: $77,156

2.4. Site Fencing and Security

Site fencing and security must be included for the area which has received waste and have no existing approved fencing.

Enter additional site fencing and security work or cost element details as site-specific conditions warrant:

The site has adequate existing fencing.

2.5. Landfill Gas Monitoring and Control Systems

Enter information for Items 2.5.1 through 2.5.6.

Final installation of the landfill gas monitoring and control systems must include the installation costs of pipes and appurtenances. In the event of a forced closure, the systems may not have been completed, thus, the estimated costs to complete the landfill gas monitoring and control system must be provided.

Enter additional landfill gas monitoring and control systems work or cost element details as site-specific conditions warrant:

No landfill gas system is required.

2.6. Groundwater Monitoring System

2.6.1. Monitor Well Installation

Upon closure of the site, it may be necessary to relocate the compliance boundary. This requires the installation of new monitor wells.

Enter additional groundwater monitoring system work or cost element details as site-specific conditions warrant: **$720,000**

~~**No existing groundwater monitoring system.**~~

2.6.2. Piezometer and Monitor Well Plugging and Abandonment

Piezometer or monitor well abandonment is the cost of abandoning (plugging) piezometers or monitor wells that are no longer needed. Determine the number of piezometers or monitor wells to be abandoned and include the total cost.

Enter additional plugging and abandonment work or cost element details as site-specific conditions warrant:

No plugging of piezometers or monitoring wells is required.

2.7. Leachate Management

2.7.1. Completion of Existing Leachate Collection System

In the event of a forced closure, there may be circumstances where the leachate collection system has not been completed. In this event, the leachate collection system must be closed with a permanent outfalls and permanent cleanouts installed.

Enter additional leachate management work or cost element details as site-specific conditions warrant:

There is not an existing leachate system.

2.8. Stormwater Management

2.8.1. Stormwater Drainage Management System

To reduce the potential long-term impacts of the landfill on surface water quality, drainage features must be incorporated into the final cover design to direct runoff, minimize erosion, control sediments, and avoid ponding of stormwater. The drainage system construction costs must be included.

Enter additional stormwater drainage management work or cost element details as site-specific conditions warrant:

Included in overall cost of final cover system construction.

2.9. Additional Construction Cost Items Not Listed on Worksheet

List the Attachments detailing any additional construction cost items necessary to close the site that is not already included as a line item on the worksheet: Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional construction cost items in the "Cost" column.

2.10. Construction Costs Subtotal: ~~$979,239~~ $1,660,480

2.10.1. Enter the sum of construction costs in Items 2.1 through 2.9.

3. Storage and Processing Unit Closure Costs

For landfills that incorporate storage and/or processing operations that are not separately authorized, all waste and processed and unprocessed materials associated with storage and/or processing units must be removed during the closure process.

3.1. Waste Disposal

The cost of disposal of waste at an authorized facility. *Enter additional waste disposal work or cost element information as necessary.*

Not Applicable

3.2. Material Removal and Disinfection

The cost of removal, including transportation, of any remaining processed and unprocessed materials to an authorized off-site location. *Enter additional material removal and disinfection work or cost element information as necessary.*

Not Applicable

3.3. Demolition and Disposal

The cost of dismantling and/or disinfection of storage and/or processing units and disposal, as applicable. *Enter additional demolition and disposal work or cost element information as necessary.*

Not Applicable

3.4. Additional Storage and Processing Unit Closure Cost Items Not Listed in Worksheet

List the Attachments detailing any additional storage and processing unit closure cost items necessary to close the site that is not already included as a line item on the worksheet. Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional storage and processing unit closure cost items in the "Cost" column.

3.5. Storage and Processing Unit Closure Costs Subtotal: Not Applicable

4. Sum of Cost Subtotals: ~~$1,344,055~~ $2,085,296

4.1. Enter the sum of engineering, construction, and storage and processing unit closure cost subtotals from lines 1.9.1, 2.10.1, and 3.5.1.

5. Contingency: ~~$134,405~~ $208,530

5.1. Add an amount equal to at least 10 percent of the sum of cost subtotals to cover unanticipated events during implementation of closure activities.

6. Contract Performance Bond: ~~$26,881~~ $41,706

6.1. Add an amount equal to at least 2 percent of the sum of cost subtotals for purchase of a surety bond to guarantee satisfactory completion of the closure activities.

7. Third Party Administration and Project Management Costs: ~~$33,601~~ $52,132

7.1. Add an amount equal to at least 2.5 percent of the sum of cost subtotals to cover the cost for a third party hired by TCEQ to administer the closure activities.

8. Total Closure Cost: ~~$1,538,943~~ $2,387,663

8.1. Enter the sum of the amounts on lines 4.1, 5.1, 6.1, and 7.1.

IV. Closure Cost Estimates Worksheet

A. Landfill Data

Total Permitted Waste Disposal Area: 210.7 acres

Largest Area Requiring Final Cover in the year to follow: 45.0 acres

Total Filled Area with Constructed Final Cover: 0 acres

Total Area Certified Closed: 0 acres

Number of Monitor Wells to be Installed for Closure: 0

Number of Gas Probes to be Installed for Closure: 0

Total Acreage Needing LFG Collection and Control System: 0 acres

The unit or lump sum cost for each item is based on the work items and cost elements described in Section III of this Closure Cost Estimate document:

Yes ☒ No ☐ Partially ☐

(if "No" or "Partially" is checked, please include attachments describing the additional work items and detailing the unit, quantities, and costs for the additional items)

B. Facility Drawings and Financial Assurance Documentation

- Facility drawings
  - Attach facility drawings showing the closure areas to which the closure cost estimates apply.
- Financial assurance documentation
  - For an existing facility, attach a copy of the documentation required to demonstrate financial assurance as specified in 30 TAC Chapter 37, Subchapter R.
  - For a new facility, a copy of the required documentation shall be submitted 60 days prior to the initial receipt of waste.

C. Attachments

- Additional Engineering, Construction, and Storage and Processing Units Cost Items Details

D. Closure Cost Estimates Worksheet

If any item listed in this worksheet is not applicable to the subject facility, enter "NA" (Not Applicable) in the affected field.

Table 1. Closure Cost Estimates Worksheet.

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
1. Engineering Costs						
1.1	Topographic Survey	Lump Sum	1	$5,180	$5,180	Third Party Estimate
1.2	Boundary Survey	Acres	337.9	$67	$22,754	Third Party Estimate
1.3	Site Evaluation	Acres	337.9	$730	$246,795	Third Party Estimate
1.4	Development of Plans	Acres	45.0	$616	$27,739	Third Party Estimate
1.5	Contract Administration (bidding and award)	Percent	10%	NA	$30,246	Third Party Estimate
1.6	Closure Inspection and Testing	Acres	45.0	$1,886	$84,848	Third Party Estimate
1.7	TPDES and other Permits	Lump Sum	1	$7,252	$7,252	Third Party Estimate
1.8	Additional Engineering Cost Items (describe in attachments)	NA	NA	NA	NA	NA
1.9 Engineering Costs Subtotal						
1.9.1	Engineering Costs Subtotal	NA	NA	NA	424,816	NA
2. Construction Costs						
2.1 Mobilization						
2.1.1	Mobilization of Personnel and Equipment	Lump Sum	5%	424,816	21,241	NA
2.2 Final Cover System						
2.2.1 Side Slope Cover						
2.2.1a	Infiltration Layer – Compacted Clay	Cubic Yards	NA	NA	NA	Estimate from Recent Construction Experiences
2.2.1b	Infiltration Layer – Geosynthetic Clay Liner	Square Feet	NA	NA	NA	NA

Closure Cost Estimate for MSW Type I Landfill

Facility Name: City of Meadow Landfill Revision No.: 2

Permit No: 2293C Date: 7/2025

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
2.2.1c	Flexible Membrane Cover – HDPE	Square Feet	NA	NA	NA	NA
2.2.1d	Flexible Membrane Cover – LLDPE	Square Feet	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.1e	Drainage Layer – Aggregate	Cubic Yards	NA	NA	NA	NA
2.2.1f	Drainage Layer – Drainage Geocomposite Material	Square Feet	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.1g	Erosion Layer	Cubic Yards	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.1h	Vegetation	Acres	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.2 Top Slope Cover						
2.2.2a	Infiltration Layer – Compacted Clay	Cubic Yards	108,900	$6.01	$654,489	Estimate from Recent Construction Experiences
2.2.2b	Infiltration Layer – Geosynthetic Clay Liner	Square Feet	NA	NA	NA	NA
2.2.2c	Flexible Membrane Cover – HDPE	Square Feet	NA	NA	NA	NA
2.2.2d	Flexible Membrane Cover – LLDPE	Square Feet	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.2e	Drainage Layer – Aggregate	Cubic Yards	NA	NA	NA	NA
2.2.2f	Drainage Layer – Drainage Geocomposite Material	Square Feet	NA	NA	NA	~~Estimate from Recent Construction Experiences~~ NA
2.2.2g	Erosion Layer	Cubic Yards	36,300	$3.89	$141,207	Estimate from Recent Construction Experiences
2.2.2h	Vegetation	Acres	45.0	$1,031	$46,387	Estimate from Recent Construction Experiences
2.2.3 Cells for Class 1 Nonhazardous Industrial Waste						
2.2.3a	Dike Construction	specify	NA	NA	NA	NA

Closure Cost Estimate for MSW Type I Landfill

Facility Name: City of Meadow Landfill Revision No.: 2

Permit No: 2293C Date: 7/2025

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
2.3 Site Grading						
2.3.1	Site Grading	Acres	45.0	$1,715	$77,156	Estimate from Recent Construction Experiences
2.4 Site Fencing and Security						
2.4.1	Site Fencing and Security	specify	NA	NA	NA	NA
2.5 Landfill Gas Monitoring and Control System						
2.5.1	Gas Control Wells	specify	NA	NA	NA	NA
2.5.2	Gas Header Piping	specify	NA	NA	NA	NA
2.5.3	Gas Lateral Piping	specify	NA	NA	NA	NA
2.5.4	Flare Station	Lump Sum	NA	NA	NA	NA
2.5.5	Condensate Sumps	specify	NA	NA	NA	NA
2.5.6	Completion of LFG Monitoring System	Wells	NA	NA	NA	NA
2.6 Groundwater Monitoring System						
2.6.1	Groundwater Monitoring Well Installation	Each	~~NA~~ 24	~~NA~~ 30,000	~~NA~~ $720,000	~~NA~~ Estimate from Recent Construction Experiences
2.6.2	Piezometer and Monitor Well Plugging and Abandonment	Each	NA	NA	NA	NA
2.7 Leachate Management						
2.7.1	Completion of Leachate Management System	specify	NA	NA	NA	NA
2.8 Stormwater Management						
2.8.1	Stormwater Drainage Management System	specify	NA	NA	NA	NA
2.9 Other Cost Items						
2.9.1	Additional Construction Cost Items (describe in attachments)	LS	1	NA	NA	Estimate from Recent Construction Experiences
2.10 Construction Costs Subtotal						
2.10.1	Construction Costs Subtotal	NA	NA	NA	~~$979,239~~ $1,660,480	NA

Closure Cost Estimate for MSW Type I Landfill

Facility Name: City of Meadow Landfill Revision No.: 2

Permit No: 2293C Date: 7/2025

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
3. Storage and Processing Unit Closure Costs						
3.1	Waste Disposal	☐ Tons ☐ Cubic Yards	NA	NA	NA	NA
3.2	Material Removal and Disinfection	specify	NA	NA	NA	NA
3.3	Demolition and Disposal Units	specify	NA	NA	NA	NA
3.4	Additional Storage and Processing Unit Closure Cost Items (describe in attachments)	identify attach-ments	NA	NA	NA	NA
3.5 Storage and Processing Unit Closure Costs Subtotal						
3.5.1	Storage and Processing Unit Closure Costs Subtotal	NA	NA	NA	NA	NA
4. Sum of Engineering, Construction, and Storage and Processing Unit Closure Costs						
4.1	Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals	NA	NA	NA	~~$1,344,055~~ $2,085,296	NA
5. Contingency						
5.1	Contingency (10% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	~~$134,405~~ $208,530	NA
6. Contract Performance Bond						
6.1	Contract Performance Bond (2% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	~~$26,881~~ $41,706	NA
7. Third Party Administration and Project Management Costs						
7.1	Third Party Administration and Project Management Costs (2.5% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	~~$33,601~~ $52,132	NA

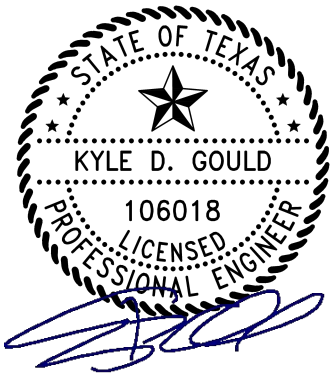
Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
8. Total Closure Costs						
8.1	Total Closure Costs (sum of amounts in Sections 4, 5, 6, and 7)	NA	NA	NA	~~$1,538,943~~ $2,387,663	NA

[1] For items marked "specify," the responsible professional engineer will enter appropriate unit of measurement

[2] Sources of Unit Costs for Cost Estimates table may include:
(1) Published Cost Estimator Manuals (e.g., RS Means);
(2) Third Party Quotes (e.g., Environmental Field Services Contractors);
(3) Verifiable Data based on Actual Operations; or
(4) Other sources of cost acceptable to the executive director of the TCEQ.

APPENDIX IIIL-B

POST-CLOSURE COST ESTIMATE FORM FOR MUNICIPAL SOLID WASTE TYPE I LANDFILL (FORM 20723)



07/16/2025

Texas Commission on Environmental Quality

Post-Closure Care Cost Estimate Form for Municipal Solid Waste Type I Landfills

This form is for use by applicants or site operators to provide post-closure care cost estimates for post-closure care of MSW Type I landfills to meet the requirements in 30 Texas Administrative Code (TAC) Chapter 330, Section 330.63(j) and 30 TAC Chapter 330 Subchapter L. The costs to be provided herein are cost estimates for hiring a third party to conduct post-closure care of the largest waste fill area that has been certified closed in writing by the TCEQ executive director.

If you need assistance in completing this form, please contact the MSW Permits Section in the Waste Permits Division at (512) 239-2335.

I. General Information

Facility Name: City of Meadow Landfill

MSW Permit No.: 2293C

Date: ~~2/2025~~ 7/2025

Revision Number: ~~1~~ 2

Site Operator/Permittee Name and Mailing Address: Meadow Landfill, LLC, 663 County Road 545, Meadow, TX 79345

Total Post-Closure Care Cost Estimate (2024 Dollar Amount): $933,512

II. Professional Engineer's Statement, Seal, and Signature

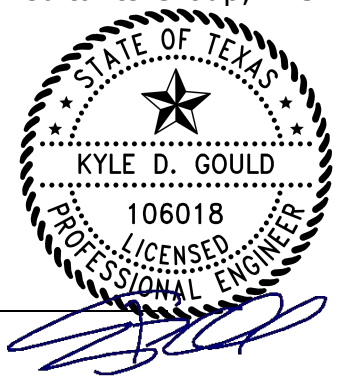
I am a licensed professional engineer in the State of Texas. To the best of my knowledge, this Post- Closure Care Cost Estimate has been completed in substantial conformance with the facility Post-Closure Care Plan and, in my professional opinion, is in compliance with Title 30 of the Texas Administrative Code, Chapter 330.

Name: Kyle D. Gould Title: Senior Engineer

Date: ~~2/2025~~ 7/2025

Company Name: Weaver Consultants Group, LLC Firm Registration Number: F-3727

Professional Engineer's Seal



Signature

07/16/2025

III. Annual Review of Permit Conditions, Cost Estimates, Adjustments for Inflation, and Financial Assurance

The site operator/permittee acknowledges that he/she will:

1. Revise and increase the post-closure care cost estimate and the amount of financial assurance provided whenever changes in the post-closure care plan or the landfill conditions increase the maximum cost of post-closure care at any time during the remaining active life of the landfill and until the facility is officially released from the post-closure care period in writing by the executive director.
2. Request a reduction in the post-closure care cost estimate and the amount of financial assurance as a permit modification whenever the post-closure care cost estimate exceeds the maximum cost of post-closure care remaining over the post-closure period. The permit modification will include a detailed justification for the reduction of the post-closure care cost estimate and the amount of financial assurance.
3. Establish financial assurance for post-closure care of the unit in an amount no less than the current post-closure care cost estimate in accordance with 30 TAC Chapter 37
4. Adjust the current post-closure care cost estimate for inflation within 60 days prior to the anniversary date of the first establishment of the financial assurance mechanism.
5. Provide annual inflation adjustments to the post-closure care costs and financial assurance during the active life of the facility and during the post closure care period. The adjustment will be made using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business, as specified in 30 TAC Chapter 37. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.
6. Provide continuous financial assurance coverage for post-closure care until the facility is officially released in writing by the executive director from the post-closure care period in accordance with all requirements of the post-closure care plan.

IV. Description of Worksheet Items of the Post-Closure Care Cost Estimates

The following descriptions of the worksheet items provide guidance for identifying the minimum work or cost elements for estimating the unit or lump sum cost of each item as applicable. Enter additional detail for each item in the field following the item as necessary and as site-specific conditions warrant. The cost items are grouped under post-closure care costs for engineering, construction, and leachate management. Include attachments to detail any additional work and associated costs necessary for the post-closure care of the unit or facility that is not already included as a line item on the worksheet. Reference the attachments and list the work or cost items in the fields under "Additional Engineering Cost Items Not Listed on the Worksheet," "Additional Construction Cost Items Not Listed on the Worksheet," or Additional Leachate Management Costs Not Listed on the Worksheet" as applicable. Provide the total cost of additional work or cost items in each cost category on the worksheet line that precedes the cost subtotal for each cost group.

1. Engineering Costs

1.1. Site Inspection and Recordkeeping

Regularly scheduled and event-driven site inspection must be performed to identify areas experiencing settlement, subsidence, erosion, or other drainage related problems, and note the conditions of the environmental control and monitoring systems, including leachate collection, groundwater monitoring, and landfill gas monitoring systems*. Enter additional site inspection and recordkeeping work or cost element detail as site-specific conditions warrant.*

~~**$105,019**~~ **$3,379**

Site inspections will identify any potential areas experiencing settlement and erosion over the entire area to be administratively closed. The inspection will also document the condition of the LCS, LFG, groundwater monitoring system, and other landfill systems.

1.2. Correctional Plans and Specifications

The cost for an engineering consultant to prepare corrective measure construction plans and specifications to correct problems identified during site inspections. *Enter additional work or cost element details for correctional plans and specifications as site-specific conditions warrant.*

~~**$143,347**~~ **$4,731**

Includes preparation of plans and specifications to correct problems identified during inspections in area of waste in-place.

1.3. Site Monitoring

The cost of performing semiannual groundwater (including costs for sampling and analyzing parameters, and assessment and reporting) and quarterly landfill gas monitoring (including costs for sampling and reporting) and the monitoring of other site-specific systems at the landfill during the post-

closure period. *Enter additional site monitoring work or cost element details as site-specific conditions warrant.*

~~**$16,783**~~ **$1,400**

After development of the footprint under Permit No. MSW-2293C then, this will also include the cost for semi-annual groundwater monitoring.

1.4. Additional Engineering Cost Items Not Listed on the Worksheet

List the Attachments detailing additional post-closure care engineering cost items not already included as a line item on the worksheet. (Also, reference these Attachments in the "Units" column of this line of the worksheet. Provide the total cost of all additional engineering cost items in the "Cost" column).

NA

2. Construction Costs

2.1. Cap and Sideslopes Repairs and Revegetation

The cost of repair of the cap and cap drainage control structures due to erosion or structural integrity failures and maintaining final cover vegetation to minimize erosion. *Enter additional cap and sideslopes repair and revegetation work or cost element details as site-specific conditions warrant.*

~~**Included in Item 2.0 on Table 2.**~~ **$9,450**

2.2. Mowing and Vegetation Control

The cost of controlling vegetation growth on the final cover and other areas of the landfill. *Enter additional mowing and vegetation control work or cost element details as site-specific conditions warrant.*

~~**Included in Item 2.0 on Table 2.**~~ **$5,500**

2.3. Groundwater Monitoring System Maintenance

The cost of repairs/replacement and routine maintenance. *Enter additional groundwater monitoring system maintenance work or cost element details as site-specific conditions warrant.*

N/A no groundwater monitoring system.

2.4. LFG Monitoring Probes Maintenance

The cost of repairs/replacement and routine maintenance. Enter additional LFG monitoring probes maintenance work or cost element details as site-specific conditions warrant.

LFG O&M is not applicable until sufficient footprint is developed.

2.5. LFG Collection System Maintenance

The cost of repairs and routine maintenance. *Enter additional LFG collection system maintenance work or cost element details as site-specific conditions warrant.*

After a sufficient footprint has been developed under the Permit No. MSW-2293C requiring an LFG Collection System then, the chart for LFG O&M (provided on Table 2) will be applicable.

2.6. Perimeter Fence and Gates Maintenance

The cost of maintaining perimeter fence and gates to restrict unauthorized access to the closed landfill. *Enter additional perimeter fence and gates maintenance work or cost element details as site-specific conditions warrant.*

~~**Included in Item 2.0 on Table 2.**~~ **$1,200**

2.7. Access and Rights of Way Maintenance

The cost of maintaining the access roads and other rights of way to the closed landfill to conduct inspections, environmental sampling, routing maintenance and other post-closure activities. *Enter additional access and rights of way maintenance work or cost element details as site-specific conditions warrant.*

~~**Included in Item 2.0 on Table 2.**~~ **$2,000**

2.8. Drainage System Cleanout and Repairs

The cost to include costs for maintaining and repairing ditches, conveyance structures, and ponds/basins. *Enter additional drainage system cleanout and repairs work or cost element details as site-specific conditions warrant.*

Included in Item 2.0 on Table 2.

2.9. Additional Construction and Maintenance Cost Items Not Listed on the Worksheet

List the Attachments detailing any additional construction and maintenance cost items necessary for post-closure care that are not already covered on the worksheet. (Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional construction and maintenance cost items in the "Cost" column.)

~~**Included in Item 2.0 on Table 2.**~~ **NA**

3. Leachate Management Costs

3.1. Leachate Collection and Removal System Operation and Maintenance

The cost of operation, routine maintenance and repairs. *Enter additional work or cost element details for leachate collection and removal system operation and maintenance as site-specific conditions warrant.*

NA

3.2. Leachate Disposal

The cost of leachate disposal off-site. *Enter additional work or cost element details for leachate disposal as site-specific conditions warrant*.

NA

3.3. Additional leachate management cost items not listed on the worksheet.

List the Attachments detailing any additional leachate management cost items necessary for post-closure care that are not already covered on the worksheet. (Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional leachate management cost items in the "Cost" column.)

NA

4. Sum of Cost Subtotals

Enter the sum of engineering, construction, and storage and leachate management post-closure care cost subtotals from lines 1.5.1, 2.10.1, and 3.5.1.

$829,800

5. Contingency

The cost added to cover unanticipated events during implementation of post-closure activities. (Enter additional work or cost element information as necessary)

~~**$82,980**~~ **$2,766**

6. Third Party Administration and Project Management Costs

The cost for the third party hired by TCEQ to administer the post-closure activities. (Enter additional work or cost element information as necessary)

~~**$20,753**~~ **$691**

V. Post-Closure Care Cost Estimates Worksheet

Post-Closure Care Period – 30 years

Total Permitted Acreage: 337.9 acres

Total Permitted Waste Footprint: 210.7 acres

Number of Groundwater Monitoring Wells: 0

Number of GW Monitoring Events: 2/year

Number of Gas Probes: 2

Number of LFG Monitoring Events: 4/year

The unit or lump sum cost for each item is based on the work items and cost elements described in Section III of this Post-Closure Cost Estimate document:

Yes ☒ No ☐ Partially ☐

If "No" or "Partially" is checked, please attach a written description of work items and cost elements which form the bases of unit or lump sum cost for the affected items.

(NOTE: If any item listed in this worksheet is not applicable to the subject facility, enter Not Applicable (N/A) in the affected fields)

Attachments

Additional Engineering, Construction, and Leachate Management Cost Items Details.

Table 1: Post-Closure Care Cost Estimates

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
1.0 Engineering Costs						
1.1	Site Inspection and Recordkeeping[ii]	Acre	337.9	$10.00	$3,379	WCG routinely provides this type of service.
1.2	Correctional Plans and Specifications	Acre	337.9	$14.00	$4,731	WCG routinely provides this type of service.
1.3 Site Monitoring						
1.3.1 Groundwater Monitoring System						
1.3.1(a)	Sampling and Analysis of GW Monitoring Wells (Quantity = 2 x Number of wells)	Wells	NA	NA	NA	WCG routinely provides this type of service.
1.3.1(b)	Piezometers/Well Abandonment	Each	NA	NA	NA	NA
1.3.2 LFG Monitoring System						
1.3.2(a)	LFG Quarterly Monitoring (Quarterly)	Events/ Year	4	$350	$1,400	WCG routinely provides this type of service.
1.3.2(b)	LFG Probe Plugging and Abandonment	Each	NA	NA	NA	NA
1.4 Additional Engineering Cost Items (Detail in Attachments)						
1.4.1	Additional Engineering Cost Items (describe in attachments)	Identify attachments	NA	NA	NA	NA
1.5 Engineering Costs Subtotal						

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
1.5.1	Engineering Costs Subtotal	NA	NA	NA	$9,510	NA
2.0 Construction and Maintenance Costs						
2.1	Cap and Sideslopes Repairs and Revegetation	LS	45	$210	$9,450	Ongoing postclosure maintenance projects.
2.2	Mowing and Vegetation Management	LS	1	$5,500	$5,500	Ongoing postclosure maintenance projects.
2.3	Groundwater Monitoring System Maintenance	specify	Included in monitoring.			
2.4	LFG Monitoring Probes Maintenance	specify	Included in monitoring.			
2.5	LFG Collection System Maintenance	specify	0	NA	NA	NA
2.6	Perimeter Fence and Gates Maintenance	LS	1	$1,200	$1,200	Ongoing postclosure maintenance projects.
2.7	Access Roads Maintenance	LS	1	$2,000	$2,000	Ongoing postclosure maintenance projects.
2.8	Drainage System Cleanout/Repairs	specify	NA	NA	NA	NA
2.9 Additional Construction and Maintenance Cost Items (Details in Attachments)						
2.9.1	Additional Construction and Maintenance Cost Items (details in attachments)	Identify attachments	NA	NA	NA	NA

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
2.10 Construction and Maintenance Costs Subtotal						
2.10.1	Construction and Maintenance Costs Subtotal	NA	NA	NA	~~$16,317~~ $18,150	NA
3.0 Leachate Management						
3.1	Leachate Management System Operation and Maintenance	specify	NA	NA	NA	NA
3.2	Leachate Disposal	Gals	NA	NA	NA	Estimate from Recent Construction Experiences
3.3 Additional Leachate Management Cost Items (Details in Attachments)						
3.4	Additional Leachate Management Cost Items (details in attachments)	LS	NA	NA	NA	NA
3.5 Leachate Management Costs Subtotal						
3.5.1	Leachate Management Costs Subtotal	NA	NA	NA	0	NA
4.0 Sum of Engineering, Construction, and Leachate Management Costs						
4.1	Sum of Engineering, Construction, and Leachate Management Cost Subtotals	NA	NA	NA	$27,660	NA
5.0 Contingency						
5.1	Contingency (10% of Sum of Engineering, Construction, and Leachate Management Cost Subtotals)	NA	NA	NA	$2,766	NA

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
6.0 Third Party Administration and Project Management Costs						
6.1	Third Party Administration and Project Management Costs (2.5% of Sum of Engineering, Construction, and Leachate Management Cost Subtotals)	NA	NA	NA	$691	NA
7. Total Post-Closure Cost						
7.1	Total Annual Post-Closure Cost (Sum of amounts in Sections 4, 5, and 6)	NA	NA	NA	$31,117	NA
7.2	30 Year Post-Closure Costs (Total Annual Post-Closure Cost x 30)	NA	NA	NA	$933,512	NA

[i] Sources of Unit Cost Estimates may include:
(1) Published Cost Estimator Manuals (e.g., RS Means);
(2) Third Party Quotes (e.g., Environmental Field Services Contractors); or
(3) Verifiable Data based on Actual Operations

[ii] Example Description for Item No. 1.1 – "Includes costs for site inspection performed at least annually for identification of areas experiencing settlement or subsidence, erosion or other drainage-related problems, inspection of the leachate collection system, gas monitoring system and LFG monitoring system."

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

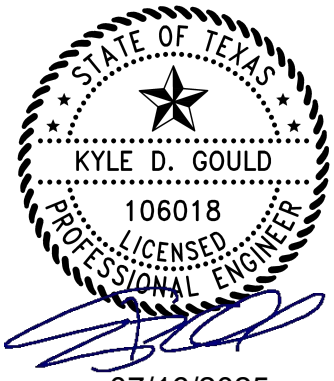
PART IV – SITE OPERATING PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



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WCG Project No. 0120-809-11-06

This document is intended for permitting purposes only.

reducing traffic at the MSW working face. The Citizens Convenience Center is located over an impervious area. Citizens will be directed to the Convenience Center by site personnel at the entrance facility. Signs will be posted to assist citizens traveling to the Convenience Center. Waste material is offloaded from the small-vehicles to roll-off containers. The size of the roll-off containers will range between 20 and 40 cubic yards. The site then hauls the roll-off containers periodically to the MSW working face for disposal. The Citizens Convenience Center will not accept sharps. The maximum amount of waste stored at the Convenience Center is 200 cubic yards. The roll-off containers will be emptied at least at the end of each day the site is open or more frequently if needed. Storage for recycling may also occur ~~in~~ at the Citizens Convenience Center ~~this area~~ including electronics, whole tires, and white goods and other non-putrescible recyclables. Recyclable materials will be placed on the ground, palletized, or in containers or bins at the Citizens Convenience Center as not to impede citizen traffic accessing the rolloff containers used for waste disposal. If recyclables are received at the landfill (in segregated containers or bins) these materials may be stored within the Citizens Convenience Center area prior to off-site shipping for recycling. Individual areas for recyclable materials storage are not designated in the Citizens Convenience Center plans, although all storage of recyclables ~~(with exception of soil and rock stockpiled and used in landfill operations)~~ will be confined to the area designated as the Citizens Convenience Center on Drawing I/IIA.9. Recyclables will be periodically removed from the site by recycling vendors or transported off-site for recycling. Recyclables staged at the Citizens Convenience Center are not subject to daily removal but instead will be removed as accumulated quantities (so as not to impede Citizens Convenience Center operations) dictate.

- Liquid Waste Bulking Facility. The liquid waste bulking facility area will accept liquid wastes as outlined in Appendix IVD. Operation of the Liquid Waste Bulking Facility is described in Appendix IVD.

4.2.2 Waste Excluded from Disposal at the Site

The following wastes are specifically excluded from disposal at the site:

- Liquid wastes that do not pass the paint filter test, except as allowed under Section 4.20.1 of this SOP
- Waste classified as hazardous by the TCEQ (refer to Section 6 for more information)
- Grease trap wastes, except as allowed under Section 4.20.1 of this SOP
- Waste prohibited by the TCEQ (see 30 TAC §330.15(e)) and unauthorized wastes (prohibited waste and unauthorized waste are used interchangeably)

4.2.3 Waste Unloading Procedures

Scale Operators, Equipment Operators, Laborers, and Spotters will monitor the incoming waste. The combined efforts of the trained landfill staff will assure that each

load of waste disposed at the landfill is inspected per Title 30 TAC §330.127(5)(A). Scale Operators control site access and monitor incoming vehicles for unauthorized or prohibited wastes by (1) receiving manifests and other shipping documents, (2) recording incoming waste loads, and (3) interviewing the driver, if necessary. Any nonconforming issues will be reported to the Operations Manager or his designee. If the non-conforming issues involve Special or Industrial wastes, the Operations Manager or his designee will review Sections 4.20 and 6.2 of the SOP to verify that all requirements for acceptance of Special and Industrial waste have been met before the material is accepted for disposal. The procedures for handling prohibited waste that is not discovered until after it is unloaded are discussed in Section 6.2.

Equipment Operators, Spotters, Laborers, or other field personnel will be present at all areas where waste is being unloaded to monitor unloading of waste. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility and will be trained to

and implement measures to further minimize mud tracking onto public access roads, when necessary (e.g., temporary wheel washing procedures). Further, tracked mud and associated debris at the access to the facility on public roadways must be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway.

The landfill haul and access roads will be maintained in a reasonable dust-free condition by periodic spraying from a water truck. During dry weather conditions, the Operations Manager or his designee will routinely inspect the site and establish a frequency, if necessary, to spray the landfill access roads with water to prevent nuisance conditions from developing. Litter and other debris along the landfill access roads will be removed, consistent with the schedule requirements listed in Section 4.23 of this SOP (i.e., litter or other debris will be picked up on a daily basis). Grading equipment will be used when necessary to control or remove mud accumulations on roads as well as minimize depressions, ruts, and potholes. In addition, all on-site and other access roadways will be maintained on a regular basis. Mud and assorted debris tracked onto public roadways will be removed at least once per day on days when mud and associated debris are being tracked onto public roadways to the extent that mud can be reasonably considered to be associated with landfill operations. Landfill haul and access roads will be regraded as necessary or at a minimum once per year. Refer to Section 4.23 of this SOP for site inspection and maintenance list (this list also includes documentation requirements which are also explained in Section 9).

4.13 Salvaging and Scavenging

Salvaging is the controlled removal of waste materials for utilization, recycling, or sale. Salvaging must not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials shall be removed from the facility often enough to prevent the items from becoming a nuisance, to preclude the discharge of any pollutants from the area, and to prevent an excessive accumulation of the material at the facility. Special waste received at the disposal facility not be salvaged.

Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system. Scavenging will be prohibited at all times.

4.14 Endangered Species

Information regarding endangered species is located in Parts I/II, Section 12, in accordance with §330.61(n) and §330.551. No suitable habitat exists on the site for any species listed for Terry County, nor has critical habitat been designated in the project area for any threatened or endangered species. Neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species or cause or contribute to the taking of endangered or threatened

Therefore, if an abandoned oil, gas, or water well is located, the Operations Manager will provide written notification to the TCEQ's Executive Director of their location within 30 days after discovery during the course of facility development. If any wells are encountered, they will be exposed, the casing cut to a minimum of 2 feet below the excavation, and the well capped and plugged in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable state agency.

The Operations Manager or his designee will provide written notification to the Executive Director of the location of any and all existing or abandoned water wells within the facility upon discovery during site development. Within 30 days of such a discovery, the Operations Manager or his designee will provide written notification and certification to the Executive Director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. If a water well is proposed in the future, a permit modification will be submitted to the TCEQ to meet the requirements of §330.161. Water wells that will be used to supply the facility may remain in use provided they are not affected by landfill operations.

The Operations Manager or his designee will provide written notification to the Executive Director of the location of any and all existing or abandoned ~~For~~ crude oil or natural gas wells, or other wells associated with mineral recovery that are under the jurisdiction of the Railroad Commission of Texas within the facility upon discovery during site development., ~~w~~Within 30 days after the plugging of any such well, the Operations Manager will provide the Executive Director of the TCEQ with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas.

A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged. Plugging reports for former onsite oil and gas wells are provided in Part III, Appendix IIIG-A.

In the event that an abandoned well causes a change to the liner installation plan, a permit modification will be submitted to the Executive Director in accordance with §330.131(d).

4.17 Compaction of Solid Waste

Compaction of incoming waste facilitates efficient use of available space, minimizes settlement and consolidation, and promotes proper application of daily, intermediate, and final cover. Landfill compactor(s) or similar equipment will be used to compact waste at City of Meadow Landfill. Unless otherwise documented in the Site Operating Record, the Operations Manager or his designee will instruct the Equipment Operators to spread waste in lifts that are approximately two feet thick. The compactor will typically make two to four passes to compact the waste. A pass is defined as one direction of travel. The Equipment Operators will be trained to determine whether the compaction equipment is functioning as designed to ensure

- The random selection procedure shall ensure that waste hauling vehicles are selected at varying times during the appropriate days of each week.
- The random selection procedure shall apply to all non-excluded waste hauling vehicles that transport waste to the site.

If inclement weather or other conditions preclude the random inspection from being performed on the scheduled day, the delayed random inspection shall be performed at the same scheduled time on the next day that the site is operating. Thus, if a scheduled random inspection is delayed, there will be two random inspections performed the next operating day.

The loads which are excluded from random inspections are listed below:

- Waste from transfer stations (meeting the criteria stated below)
- Liquid wastes
- Asbestos wastes
- Loads ~~for~~ which ~~other steps have been taken to ensure~~ have been verified through generator profiling that regulated hazardous wastes or PCB wastes are excluded

The facility may accept waste from transfer stations. Wastes received from transfer stations will not be screened at the site if the transfer station is permitted or registered by the TCEQ and random screening procedures are conducted at the transfer station. Copies of the transfer station TCEQ permit or registration number, and a letter from the transfer station owner or operator certifying that random waste screening is conducted at the transfer station, will be included in the documentation for transfer station loads excluded from random inspection procedures. Transfer station loads not meeting these criteria and vehicles containing special waste will be subject to random inspections.

Spreading of the waste for inspection may be accomplished by using mechanized equipment or hand implements. Inspectors shall observe the waste materials as the waste discharged from the truck is spread and separated. The waste shall be sufficiently spread to determine its character and composition. Inspectors shall wear appropriate personal protective equipment during the inspection which includes, at a minimum, the following:

1. Gloves;
2. Work boots;
3. Clothing which minimizes contact of waste;
4. High visibility clothing; and
5. Hardhat.

7.7.2 Working Face Fire Fighting Plan

If a fire is detected within material at the working face, the spotter (or Equipment Operator) will first redirect incoming loads away from the affected area. Working face fires will be extinguished by one of the following techniques. This section provides alternative fire fighting methods as allowed by §330.129.

- If the area of burning waste is small (e.g., an area of 10 feet by 10 feet or less), and is a surface fire, it will be extinguished using a fire extinguisher located on the equipment at the working face. Additional measures will be used, if necessary, to fully extinguish the fire. After the fire is extinguished, the affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or his designee.
- For an approximate burning waste area of 30 feet by 30 feet ~~T~~the burning waste material will be removed (i.e., "cut out" of the working face by a dozer or similar equipment) from the working face to an area where it can be covered with 6 inches of soil. The water truck may also be used to extinguish the burning waste. The working face area in which the burning waste was removed will be covered with 6-inces of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan. ~~This option is applicable to an approximate burning waste area of 30 feet by 30 feet.~~
- For an approximate burning waste area of 50 feet by 50 feet ~~T~~the burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed at the facility. The working face area which contained the burning waste will be covered with 6 inches of soil to smother the fire. Upon extinguishing a fire at the working face through smothering with soil, that portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or his designee. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan. ~~This option is applicable to an approximate burning waste area of 50 feet by 50 feet.~~
- For areas larger than 50 feet by 50 feet, ~~T~~the burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed at the facility. Then the burned (or burning) waste material will be removed from the working face to an area where it can be covered with 6 inches of soil. The working face area in which the burning waste was removed will be covered with 6-inces of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or

his designee. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan. ~~This option is applicable to the entire working face.~~

In each case listed above, after the Operations Manager or his designee confirms that the fire has been extinguished, waste filling operations in that area may resume. In the event that the fire cannot be controlled using the methods above, the local fire department will be called at 911 (refer to Section 7.11 for additional information regarding contacting the fire department).

7.7.3 Water Trucks or Storage Tank Requirements

A water source (either a water truck(s) or storage tank(s)) equipped with a water cannon will be maintained in a readily accessible location to assist the fighting of any potential working face fire. The water truck or storage tank may be used in the support of other landfill activities (e.g., dust suppression, compaction of earth fills).

Maximum Working Face Size (width by length)	No. of Water Trucks or Tanks[1] (minimum capacity of 2,000 gallons)
30 feet by 30 feet (or 900 sf)[2]	N/A[2]
150 feet by 175 feet (or 26,250 sf)	1 (or 2,000 gallons)
250 feet by 325 feet (or 81,250 sf)	1 (or 2,000 gallons)
375 feet by 450 feet (or 168,750 sf)	2 (or 4,000 gallons)
525 feet by 600 feet (or 315,000 sf)	3 (or 6,000 gallons)

[1] The tank or truck size will be based on the required volume. For example, a water truck that has a 4,000-gallon tank is acceptable for a working face size of 375 by 450 feet.

[2] When the facility accepts less than 40 tons per day, the maximum working face area will be 30 feet by 30 feet (900 square feet) and a stockpile of earthen material adequately sized to cover the working face with 6 inches of soil (17 cubic yards) will be maintained immediately adjacent to the working face.

The on-site stormwater detention ponds may also be used as a source of water for fire control. A minimum of 2,000 gallons of water will be available for firefighting purposes. Also, during periods of freezing temperatures measures will be taken to ensure that the tank(s) remain operational. Additionally, Republic may contract with the City of Meadow for water obtained from the fire hydrant system installed and operated within the city or installed at the site (future); obtain water from an adjacent landowner existing well; or install a dedicated potable or non-potable well in the future for operational water.

7.7.4 Soil Stockpile Requirements

This section provides alternative fire fighting methods as allowed by §330.129. A soil stockpile will be maintained within 1,000 feet of each working face. The stockpile will be used to (1) smother burning waste material at the working face or (2) placed over burning waste material that has been cut out of the working face. The stockpile will be sized to cover at least 25 percent of the size of each working face. In addition, enough earthen material (i.e., soil stockpiles and soil within borrow areas) will be maintained on-site to cover the entire working face within 24 hours. The earthen material requirements are listed in the following table.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

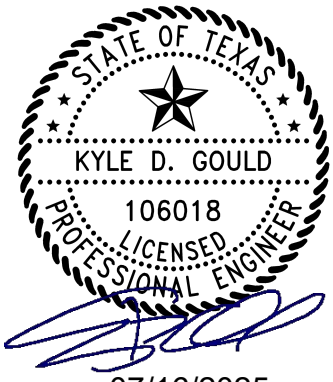
PART IV – SITE OPERATING PLAN
APPENDIX IVC
SPECIAL WASTE ACCEPTANCE PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



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WCG Project No. 0120-809-11-06

This document is intended for permitting purposes only.

hazardous waste from small quantity generators that are conditionally exempt, sludge, grease/grit trap waste and liquid wastes from municipal sources that are properly processed, and used oil filters from household generators that are properly crushed or otherwise processed to remove all free-flowing used oil do not require waste-specific and/or site-specific written approval from the TCEQ's Executive Director prior to acceptance and disposal as noted in the regulations. Similarly, soils contaminated by petroleum products, crude oils, or other chemicals may be accepted and disposed of, subject to limitations set forth in Title 30 TAC §330.171 (relating to Disposal of Wastes), and certain industrial solid wastes, such as Class 2 or Class 3 industrial solid wastes that do not interfere with facility operations, may be accepted and disposed of without a waste-specific and/or site-specific written approval from the Executive Director, subject to limitations set forth in Title 30 TAC §330.173 (relating to Disposal of Industrial Wastes). Petroleum-contaminated soils exceeding the limits set forth in Title 30 TAC §330.171(b)(4) will not be accepted for disposal at the landfill.

The special wastes enumerated in Title 30 TAC §330.171(c) and (d) and §330.173(c) and (i) – (j) (generally referenced above) will be accepted for disposal at the City of Meadow Landfill by operation of rule (with the exception of regulated asbestos containing material), without the necessity for any waste-specific or site-specific approvals. They will be managed at the facility in accordance with the methods set forth in those rules and any applicable requirements set forth in the Site Operating Plan (SOP), as further detailed in Section 6 of this SWAP.

Title 30 TAC §330.171(b)(1) provides that approvals for any other (non-enumerated) wastes must be waste-specific and/or site-specific in nature (i.e., not authorized by operation of rule); however, Title 30 TAC §330.171(b)(2) allows a generator to request approval to dispose of special waste directly from a landfill operator who has an approved Special Waste Acceptance Plan under Title 30 TAC §330.61(b) that authorizes the acceptance of such waste on a site-specific basis. This SWAP addresses requirements of the TCEQ rules allowing site-specific authorization to accept special waste meeting the facility's waste acceptance criteria set forth in Section 3 – Evaluation Guidelines of this SWAP. Unless otherwise approved by the Executive Director, only those non-enumerated special wastes that meet the waste acceptance criteria of this SWAP will be disposed of at the City of Meadow Landfill in accordance with the disposal requirements set forth in the SOP and further detailed in Section 6 of this SWAP.

In accordance with Title 30 TAC §330.171(b)(6) the executive director may revoke the authorization to accept special waste if the owner or operator does not maintain compliance with the rules or conditions imposed by this Special Waste Management Plan to accept special waste.

- The SWP Sheet must be legibly filled out with addresses, contact names, phone numbers, and signatures.
- The "Waste Stream Information" must include sufficient information to provide the Special Waste Coordinator/Analyst a clear understanding of the waste type, origin, shipping method, and anticipated volume and frequency of disposal. This information will he used by the Special Waste Coordinator/Analyst to compare the waste with the appropriate State and Federal regulations. If the description is not explicit, additional information will be requested of the generator.
- The "Physical Characteristics of Waste" must include information on the chemical and physical properties of the waste sufficient to allow the Special Waste Coordinator/Analyst to confirm the generator's waste characterization and correlate the waste properties to the appropriate State and Federal regulations. It is important that all portions of this section of the SWP Sheet be completed by the generator of the waste, and that the generator executes the certification statement in the subsequent section on the SWP Sheet.

- Site Specific Evaluation – The Special Waste Coordinator/Analyst will confirm that each site-specific approval to accept and dispose of waste at the City of Meadow Landfill complies with the following: (1) applicable TCEQ regulations governing the acceptance and disposal of wastes; (2) TCEQ Permit No. 2293C for the City of Meadow Landfill; and (3) any TCEQ orders or other official directives concerning the acceptance and disposal of special waste at the facility.
- Request for Additional Information – The Special Waste Coordinator/Analyst may request additional information from the generator before rendering a decision. This may include additional analytical data, process descriptions, MSDS, or other applicable information. After review of the SWP Sheet is completed, the Special Waste Coordinator/Analyst will complete the appropriate section of the SWP Sheet, and copies of the approval will be provided to the generator.
- Executive Director Approval – The facility may receive additional types of waste pursuant to waste-specific and/or site-specific approvals issued by the Executive Director in response to requests by generators under Title 30 TAC §330.171(b)(2) or as otherwise authorized by the Executive Director pursuant to §§330.171 or 330.173. Authorization by the executive director of an individual special waste for disposal does not oblige the operator to accept the special waste for disposal at the landfill in accordance with 30 TAC §330.171(b)(5).

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

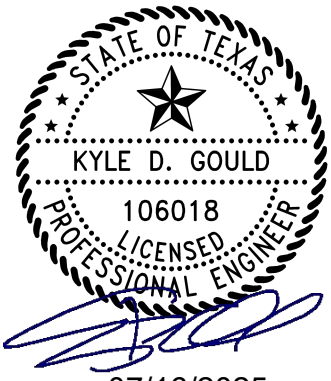
PART IV – SITE OPERATING PLAN
APPENDIX IVD
LIQUID WASTE BULKING FACILITY
OPERATING PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



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TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-809-11-06

This document is intended for permitting purposes only.

3 WASTE ACCEPTANCE AND ANALYSIS (TITLE 30 TAC §330.203 AND §330.205)

3.1 Properties and Characteristics of Waste (§330.203(a))

Typical liquid waste streams that will be accepted at the facility include, but are not limited to, sludges; septic tank pumpings (septic wastes); grease and grit trap wastes; Class 2 and 3 nonhazardous industrial wastes; Railroad Commission waste; wastes that are not classified as bulk liquids but do not pass the paint filter test; and other nonhazardous bulk liquids. These liquids will be transported to the facility by private or public haulers in vacuum trucks, tank trucks, and sealed containers. The liquids will originate from restaurants and food processing plants, car and truck washes, oil and gas related industrial operations, and other commercial and industrial facilities. Estimated volumes, processing and storage times for the above wastes are provided in the following table.

Waste Type	Daily Vol. (Gal)[1,2]	Monthly Vol. (Gal)[1,2]	Ave. Processing Time (Hrs)	Max. Storage Time (Hrs)
Sludges	6,667	200k	24	168
Septic Waste	13,333	400k	24	72
Grease and Grit Trap Waste	10,000	300k	24	72
Class 2/3 Non-Haz Waste	10,000	300k	24	168
Railroad Commission Waste	16,667	500k	24	168
Other Liquid Wastes	16,667	500k	24	168

1 Daily and Monthly volumes are estimates only and subject to change.
2 The total volume shown in the table does not imply or impose limits of individual waste or total waste volumes.

As discussed in Section 4.20 of Part IV – SOP, special waste and industrial waste will be pre-characterized prior to acceptance of the waste material following the guidelines in Part IV – SOP, Section 4.20 and the WAP included in Appendix IVA.

As required by the SOP and WAP included in Appendix IVA, incoming liquid waste will be documented on a Special Waste Profile (SWP) Sheet. The pre-characterization by the generator will include analytical testing and/or process information as necessary to make the determination that the waste is nonhazardous. No waste material will be accepted at the site that is not pre-characterized or does not have the proper manifest(s). Regulated hazardous wastes that require authorization under Title 30 TAC Chapter 335 will not be accepted at the site.

General expected characteristics of the grease trap waste stream to be handled are:

If a significant work stoppage (longer than 24 hours) should occur at the facility due to a mechanical breakdown or other causes, the site will accordingly restrict the receiving of liquid waste materials. Under such circumstances, incoming liquid waste shall be diverted (rejected at the scalehouse). If the work stoppage is anticipated to last long enough to create objectionable odors, insect breeding, or harborage of vectors, steps shall be taken to remove the accumulated waste materials from the liquid waste bulking facility to an approved permitted offsite disposal facility.

8.11 Sanitation (§330.243)

When in use, the solidification basins will be washed down on a weekly basis at the completion of processing. During times when the facility is operating on a continuous basis, the liquid waste bulking area will be washed down at least two times per week. Wash water will drain to the mixing basin and may be solidified or removed from the mixing basins and transferred via TCEQ-registered trucks to a permitted wastewater treatment plant or a registered or permitted facility capable of handling liquid waste. The wash water will be removed or solidified on the same day it is generated.

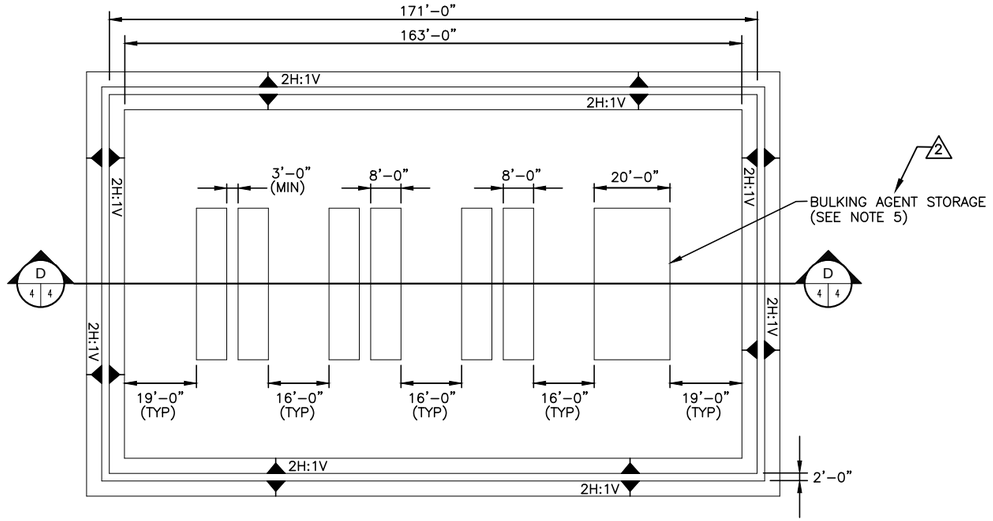
8.12 Ventilation and Air Pollution Control (§330.245)

No significant air pollution emissions are expected to result from the operation of the facility. Any emissions must not cause or contribute to air pollution as defined in the Texas Clean Air Act. The liquid waste bulking facility is covered under the City of Meadow Landfill Standard Air Permit for the site.

The operator will prevent nuisance odors from leaving the boundary of the facility. If nuisance odors are found to be passing the facility boundary, the site will immediately take action to abate the nuisance. Odors are controlled by large buffer areas to the facility from the permit boundary and solidification basin lids which will limit the liquid waste exposure to the environment. Per Section 5.2 of this appendix, the solidification basins will be covered while not in use with a portable synthetic daily cover, a fitted, rigid cover, or equivalent to prevent nuisance odors. Options to abate odors may include, but are not limited to, systematically removing waste until the odor is eliminated or the use of appropriate mister equipment. Abatement equipment will be cleaned and maintained per manufacturer recommendations so that the equipment efficiently can be adequately maintained. In addition, site personnel may also develop a plan to identify specific waste streams that are causing the odor. These waste streams will be processed under an accelerated schedule (i.e., the odor causing waste will be prioritized for processing ~~prior to delivery of the waste to the site or proactive processing for odor at the time of delivery into the solidification basin~~) to prevent odors.

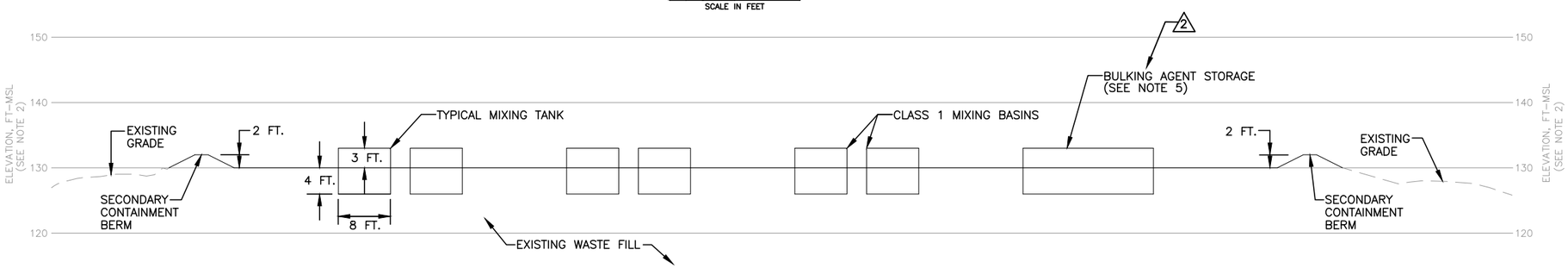
8.13 Health and Safety (§330.247)

Facility personnel will be trained in appropriate sections of the facility's health and safety plan in accordance with the procedures outlined in Section 2 of this plan and as set forth in Section 2 of the SOP.



LIQUID WASTE BULKING FACILITY
TYPICAL SECONDARY CONTAINMENT AREA PLAN (C 4 4)

0 20 40
SCALE IN FEET



LIQUID WASTE BULKING FACILITY
TYPICAL SECONDARY CONTAINMENT AREA SECTION (D 4 4)

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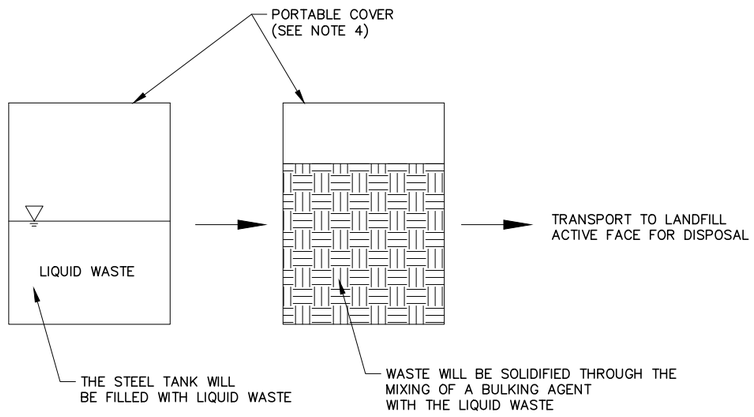
SCALE IN FEET



FLOW DIAGRAM

3

SECONDARY CONTAINMENT VOLUME CALCULATIONS FOR MIXING TANK

LIQUID WASTE BULKING FACILITY AREA SECONDARY CONTAINMENT WILL PROVIDE STORAGE TO CONTAIN EITHER THE VOLUME OF THE LARGEST TANK (16,755 GALLONS) OR THE 25-YEAR, 24 HOUR STORM EVENT (7.88 INCHES), WHICHEVER IS LARGER.

VOLUME OF LARGEST TANK = $16{,}755\ \text{gal} \times \frac{1\ \text{ft}^3}{7.481\ \text{gal}} = 2240\ \text{ft}^3$

VOLUME OF 25-YEAR 24 HR STORM = 7.88 INCHES x STORAGE AREA
= (7.88"/12") x (100 ft x 166 ft)
= 10,900 ft^3

PROVIDE STORAGE FOR 10,900 ft^3. VOLUME PROVIDED BY 1 FOOT OF THE CONTAINMENT BERM = 1 ft x 100 ft x 166 ft = 16,600 ft^3

VOLUME PROVIDED (16,600 ft^3) > VOLUME REQUIRED (10,900 ft^3)

THE VOLUME PROVIDED BY THE 2 FT. BERM IS GREATER THAN THE VOLUME OF TANK AND THE 25-YR, 24 HR STORM EVENT.

THE BERM PROVIDES FOR ONE FOOT OF FREEBOARD.

NOTES:

1. ALL SIZES AND DIMENSIONS ARE APPROXIMATE. THE SOLIDIFICATION AREA WILL BE NO LARGER THAN 130 FEET BY 130 FEET. STEEL BASINS WILL BE CONSTRUCTED OF 12 GAUGE STEEL (MINIMUM).
2. ELEVATIONS ARE SHOWN FOR SCALE PURPOSES ONLY, ACTUAL ELEVATIONS MAY VARY.
3. BULKING AGENT MATERIAL WILL BE STORED WITHIN THE SECONDARY CONTAINMENT BERM.
4. THE BASINS OR TANKS WILL BE COVERED WHEN NOT IN USE WITH A PORTABLE SYNTHETIC DAILY COVER OR A FITTED, RIGID COVER TO EXCLUDE RAINFALL FROM FROM THE BASIN AND CONTROL ODOR AND VECTORS.

4

5. STORAGE MAY CONSIST OF A SILO AND/OR CONCRETE BUNKERS THAT MINIMIZE THE STORED BULKING AGENTS EXPOSURE TO WIND. TYPICAL LOCATION IS SHOWN. IN ADDITION, BULKING AGENTS MAY ALSO BE STORED IN SOLIDIFICATION BASINS THAT ARE NOT BEING USED.

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER
07/16/2025

1 INDICATES REVISION (SEE LIST OF REVISIONS)

LIST OF REVISIONS:

1. UPDATED SIZE OF SECONDARY CONTAINMENT.
2. ADDED BULKING STORAGE AREA.
3. UPDATED CALCULATIONS FOR INCREASED SIZE OF SECONDARY CONTAINMENT.
4. ADDED NOTE 5.

☐ DRAFT
☒ FOR INFORMATION PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120-809-11
CAD: 4-TANK SECTIONS.DWG
DRAWN BY: SRF
DESIGN BY: JPI
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS		
NO.	DATE	DESCRIPTION
1	02/2025	1st TCEQ COMMENT RESPONSE
2	07/2025	SEE LIST OF REVISONS

OPTION B
LIQUID WASTE BULKING FACILITY PLAN

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

WWW.WCGRP.COM

DRAWING 4

O:\0120\809\EXPANSION 2023\VD14-BULKING FACILITY PLAN.dwg, jpuhr, 1:2

ATTACHMENT 3

REPLACEMENT PAGES (CLEAN VERSION)

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

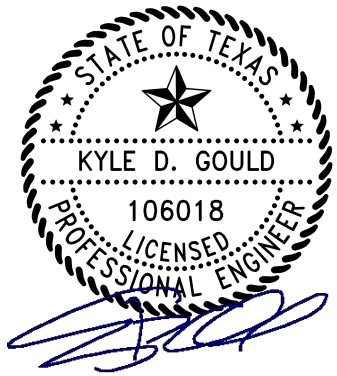
VOLUME 1 OF 6

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

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Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-809-11-05

This document is intended for permitting purposes only.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

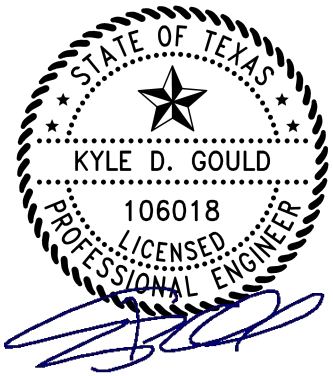
TCEQ APPLICATION FORMS AND MAILING LABELS

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

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817-735-9770

WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.

WASTE ACCEPTANCE PLAN FORM TCEQ-20873

Texas Commission on Environmental Quality

Waste Acceptance Plan Form
Type I and Type IAE Landfill Facilities

This form is designed to address the requirements for Waste Acceptance Plans in Part II of an application, as required by Title 30 Texas Administrative Code, Chapter 330, §330.61(b)(1). Rules are from Chapter 330 unless otherwise specified. If more space is needed for a line item or table item, include the information on a separate sheet and reference the line or table item.

A. Applicant Information

1. Facility Name: City of Meadow Landfill
2. MSW Permit No.: 2293C

B. Waste Generation Areas and Population Estimates

Table 1. Areas contributing waste to the facility and estimate of population or population equivalent served by the facility. Values are estimates, not permit limits.

Waste Generation Area	Estimate of Population or Population Equivalent Served in each Area
Meadow	585
Terry County	13,599
Lubbock County	166,976

Estimated population or population equivalent served by the facility

181,160

C. General Sources and Types of Waste to be Accepted at the Facility

General sources of waste to be received (household, commercial, industrial, etc.).

Municipal solid waste, household waste, yard waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special waste.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

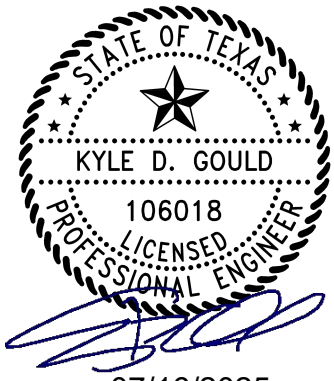
PARTS I/II
GENERAL APPLICATION REQUIREMENTS

Prepared for

Meadow Landfill, LLC

August 2024
Revised August 2024
Revised February 2025

Revised July 2025



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WCG Project No. 0120-809-11-06

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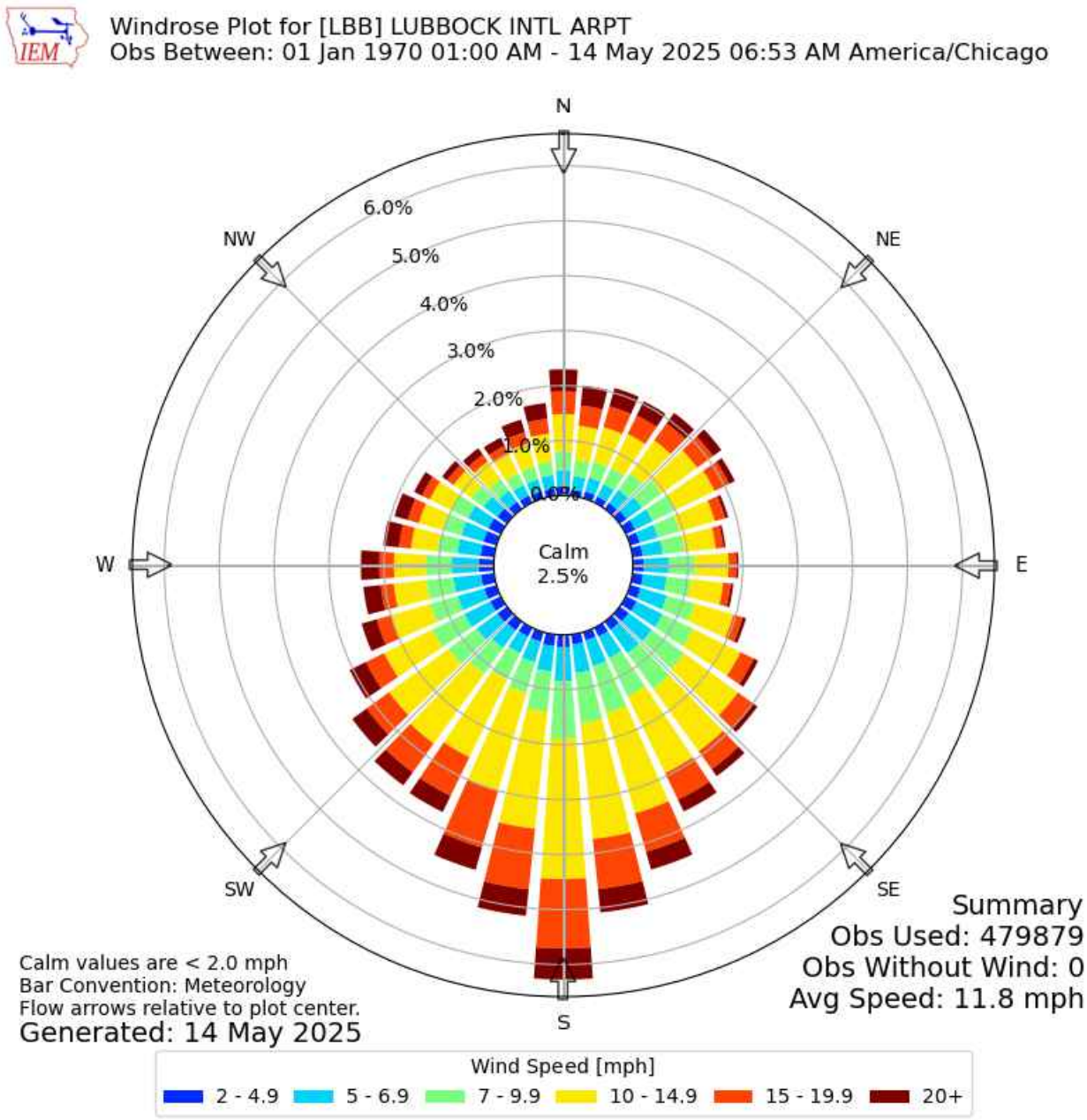


NOTE:

1. THE WIND ROSE IS REPRODUCED FROM THE AUTOMATED SURFACE OBSERVING SYSTEM (ASOS) AT LEVELLAND AND GENERATED FROM THE IOWA ENVIRONMENTAL MESONET. THE ASOS IS A JOINT PROGRAM OF THE NATIONAL WEATHER SERVICE, THE FEDERAL AVIATION ADMINISTRATION AND THE DEPARTMENT OF DEFENSE.

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

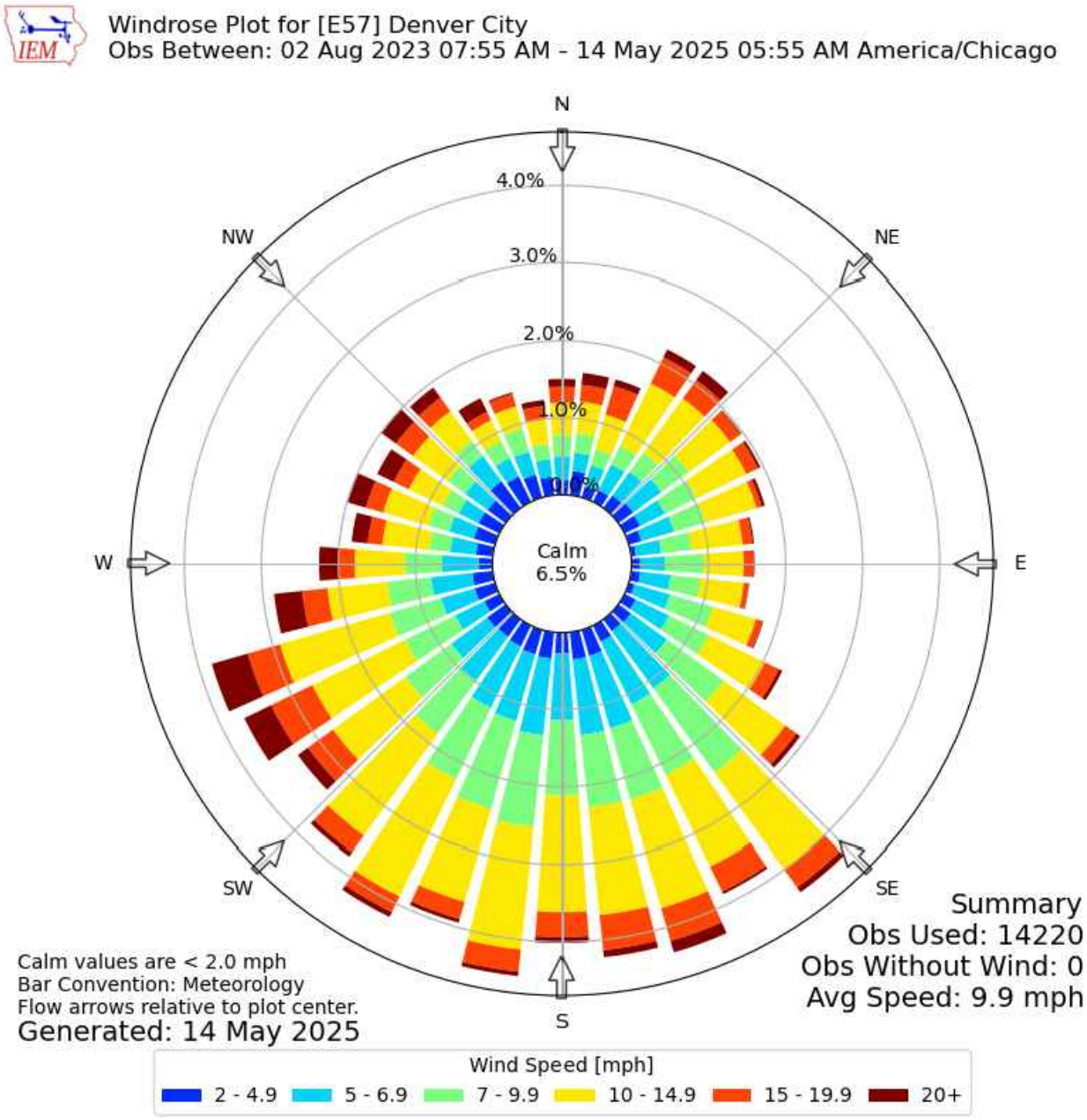
MAJOR PERMIT AMENDMENT
ASOS WIND ROSE

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

DRAWN BY: RAA	DATE: 06/2025	FILE: 0120-809-11
REVIEWED BY: JBM	CAD: I/II-4-2B WIND ROSE.DWG	FIGURE I/II-4.2B

O:\0120\809\EXPANSION 2023\PARTS I-II\CLEAN 02-2025\4.2B-LUBBOCK WIND ROSE.dwg, jpuhr, 1:1



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STATE OF TEXAS
KYLE D. GOULD
106018
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07/16/2025

MAJOR PERMIT AMENDMENT
ASOS WIND ROSE

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

DRAWN BY: RAA	DATE: 06/2025	FILE: 0120-809-11
REVIEWED BY: JBM	CAD: I/II-4-2C WIND ROSE.DWG	FIGURE I/II-4.2C

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

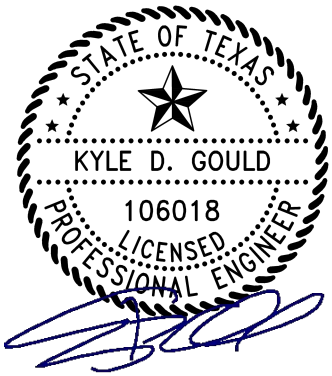
APPENDIX I/IIA
FACILITY LAYOUT MAPS

Prepared for

Meadow Landfill, LLC

July 2024
Revised February 2025

Revised July 2025



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817-735-9770

WCG Project No. 0120-809-11-05

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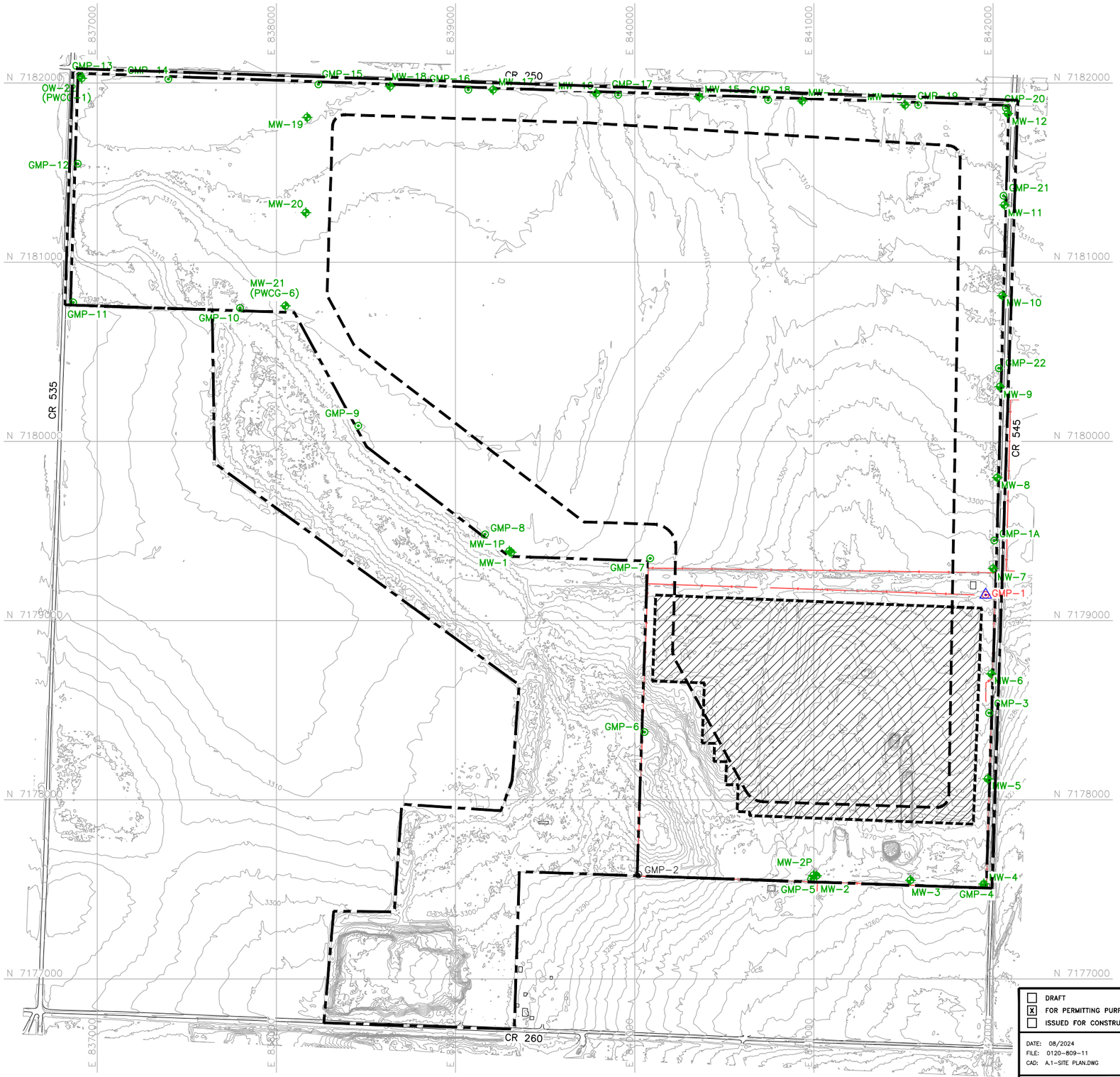

0 300 600
SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- N 7180000 — STATE PLANE COORDINATE SYSTEM
- 350 — EXISTING CONTOUR
- EXISTING FENCE
- SITE BENCHMARK (SEE NOTE 4)
- HISTORIC WASTE TO BE RELOCATED (SEE NOTE 7)
- GMP-2 — EXISTING LANDFILL GAS MONITORING PROBE
- GMP-1 — EXISTING LANDFILL GAS MONITORING PROBE (TO BE DECOMMISSIONED)
- MW-10 — PROPOSED GROUNDWATER MONITORING WELL
- GMP-21 — PROPOSED GAS PROBE

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED
PROFESSIONAL ENGINEER

07/16/2025

NOTES:

1. EXISTING CONTOURS ARE CREATED FROM UNMANNED AERIAL SURVEY DATA COLLECTED BY WEAVER CONSULTANTS GROUP, LLC ON OCTOBER 20, 2022. THE GRID SYSTEM IS TIED TO THE TEXAS COORDINATE SYSTEM OF 1983, NORTH CENTRAL ZONE, NAD83 (2011) EPOCH 2010.00 AND HAS BEEN SCALED TO SURFACE COORDINATES BY DIVIDING BY THE COMBINED SCALE FACTOR OF 0.99972824 FROM AN ORIGIN OF 0,0.
2. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. PERMIT BOUNDARY WAS PREPARED BY WEAVER CONSULTANTS GROUP IN APRIL 2023.
4. THE SITE BENCHMARK INFORMATION IS LISTED BELOW.

SITE BENCHMARK INFORMATION

MONUMENT	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION (FT-MSL)
200	7179142.87	841959.98	102°11'20.00" W	33°18'14.97" N	3297.45

5. THE SEQUENCE OF SITE DEVELOPMENT IS PROVIDED ON DRAWINGS I/IIA.4 THROUGH I/IIA.7.
6. UNAUTHORIZED ACCESS TO THE EXISTING FILL AREA AND FACILITY IS CONTROLLED WITH PERIMETER FENCING (MINIMUM 4-FOOT HIGH, 3-STRAND BARBED WIRE FENCE), GATED ENTRANCE AND NATURAL BARRIERS (DENSE FOLIAGE, VEGETATION, AND WATERWAYS). REFER TO DRAWING I/IIA.10 FOR ACCESS CONTROL PLAN.
7. HISTORIC WASTE WILL BE EXCAVATED AND RELOCATED INTO THE SUBTITLE D-LINED DISPOSAL CELLS DURING LANDFILL DEVELOPMENT.
8. DEED DESIGNATIONS THAT FORM THE PROPERTY BOUNDARY ARE SHOWN ON PAGE I/II-13-6. LEGAL DESCRIPTIONS OF THE PARCELS OF LAND CAN BE FOUND IN PART I/II-13.

SHEET I/IIA-1

- [ ] DRAFT
- [x] FOR PERMITTING PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120-809-11
CAD: A.1-SITE PLAN.DWG
DRAWN BY: JDW
DESIGN BY: CAM
REVIEWED BY: KDG

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS

NO.	DATE	DESCRIPTION
1	02/2025	1ST TCEQ COMMENT RESPONSE
2	07/2025	2ND TCEQ COMMENT RESPONSE

MAJOR PERMIT AMENDMENT SITE PLAN

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

WWW.WCGRP.COM

DRAWING I/IIA.1

O:\0120\809\EXPANSION 2023\PARTS I-II\CLEAN 02-2025\A.1-SITE PLAN.dwg, jpuhr, 1:2

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PARTS I/IIC
LOCATION RESTRICTION DEMONSTRATIONS

Prepared for:

Meadow Landfill, LLC.

August 2024
Revised February 2025

Revised July 2025

Prepared by:

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.

2 EASEMENTS AND BUFFER ZONES

The easements and buffer zones location restrictions within Title 30 TAC §330.543 require that no solid waste disposal shall occur within 25 feet of the center line of any utility line or pipeline easement but no closer than the easement, unless otherwise authorized by the Executive Director. Also, all pipeline and utility easements shall be clearly marked with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet. In addition, for vertical or lateral expansions, the owner or operator shall establish and maintain a 125-foot buffer zone for any newly permitted airspace.

The proposed buffer zones for the site are shown on Drawing I/IIC-1 and are discussed below.

- **Limit of Existing Waste.** As shown on Drawing I/IIC-1, a buffer zone of at least 50 feet is maintained between the permit boundary and the limit of existing waste defined in TCEQ Permit No. 2293.
- **Proposed Limit of Waste.** As shown on Drawing I/IIC-1, a buffer zone of at least 125 feet is maintained between the permit boundary and the proposed new waste disposal airspace (labeled as "proposed limit of waste"), consistent with Title 30 TAC §330.543(b)(2)(B).
- **Leachate Storage Tank Area.** A buffer zone of over 50 feet is maintained between the permit boundary and the proposed leachate storage tank area.
- **Citizens Convenience Center.** A buffer zone of over 50 feet is maintained between the permit boundary and the proposed Citizens Convenience Center.

There are no easements located within the permit boundary at the site. No solid waste unloading, storage, disposal, or processing will occur within 25 feet of the centerline any easement, buffer zone, or right-of-way. In addition, all utility line and pipeline easements will be clearly marked in accordance with the Site Operating Plan.

Given the above, the site is in compliance with the easements and buffer zone location restrictions.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
SITE DEVELOPMENT PLAN NARRATIVE

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025

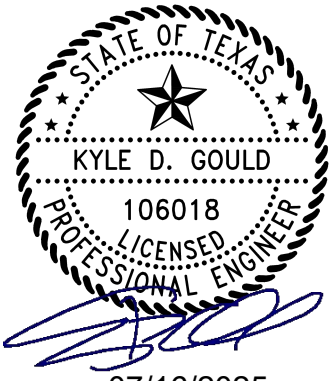

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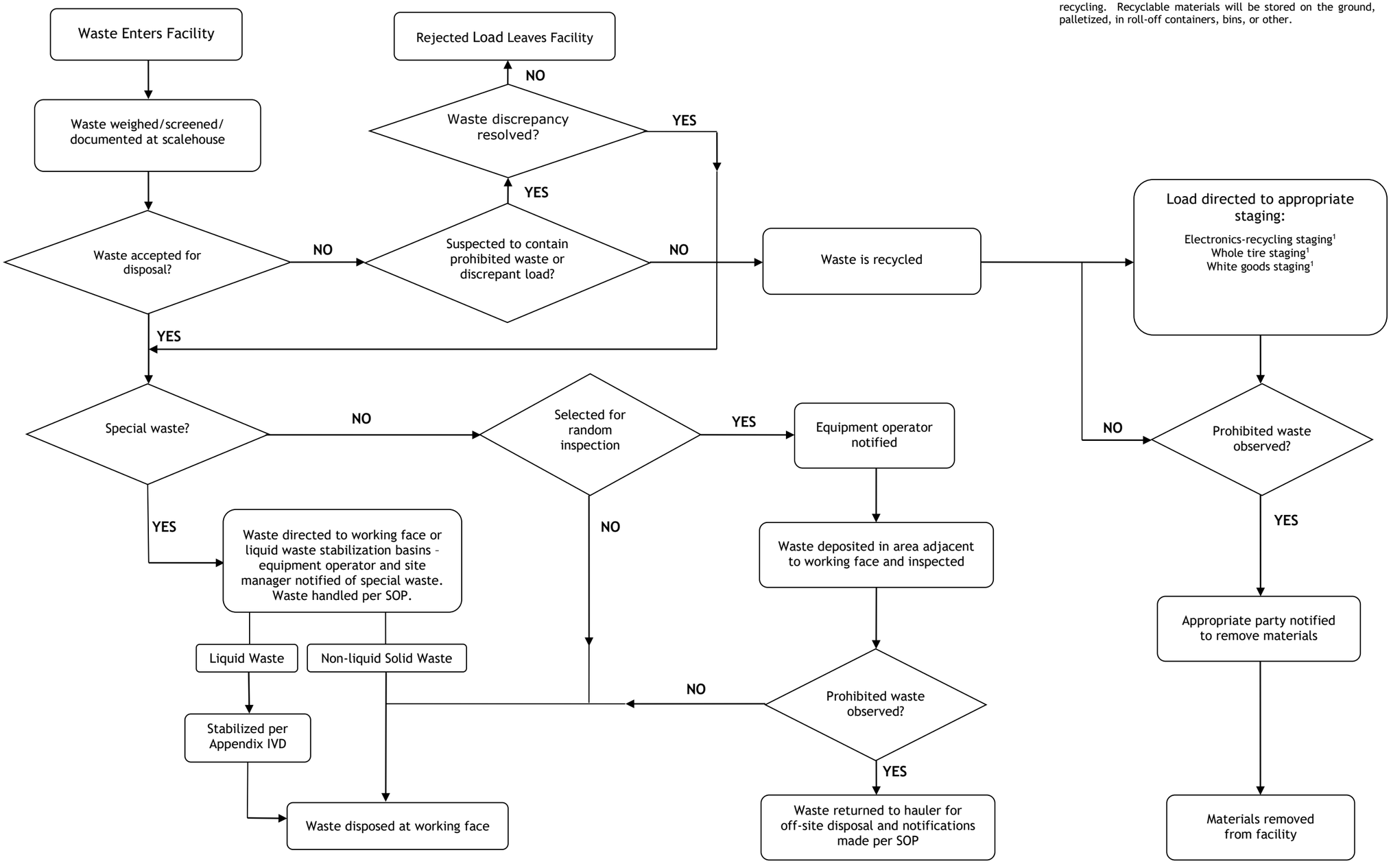
Figure III-1
Waste Movement Flow Diagram



Notes

1. Recyclable Electronics, whole tires, white goods and other non-putrescible recyclables will be staged at the Citizens Convenience Center in non-designated areas, staged in a manner not to impede citizen access to the disposal roll-off containers. The recyclables will periodically be removed from the site by recycling vendors or transported off-site for recycling. Recyclable materials will be stored on the ground, palletized, in roll-off containers, bins, or other.

- working face personnel. The load will be promptly covered with soil or solid waste when it arrives at the working face.
- Inspect the leachate collection and storage system to confirm that it is functioning as designed (e.g., inspect piping and storage tank system to verify no leaks have occurred).

2.2.4 Generalized Construction Details (§330.63(b)(2)(D))

Generalized construction details for the landfill are included in Parts I/II, Appendix I/IIA and in this SDP (e.g., Appendix IIIA). Details of the leachate management system are included in Appendix IIIC. Refer to Section 4.2.1 of the SOP for details on the Citizens Convenience Center and Appendix IVD for details on the Liquid Waste Bulking Facility.

2.3 Water Pollution Control (§330.63(b)(4))

The site is designed to prevent discharge of pollutants into waters of the state or waters of the United States, as defined by the Texas Water Code and the Federal Clean Water Act, respectively. The City of Meadow Landfill is subject to TCEQ's storm water permit requirements. A copy of the TPDES permit is included in Appendix I/IIE. Surface water monitoring will be conducted consistent with TPDES requirements.

2.4 Protection of Endangered Species (§330.63(b)(5))

Information regarding the protection of endangered species in accordance with Title 30 TAC §330.61(n) and §330.63(b)(5) is provided in Parts I/II, Section 12 – Protection of Endangered Species; and Part IV-SOP. No endangered or threatened species have been documented at the site nor has a critical habitat for such species been identified at the site. Neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species. If endangered or threatened species are encountered during site operations, Texas Parks and Wildlife and U.S. Fish and Wildlife will be notified. A site specific Threatened and Endangered Species Habitat Assessment is included in Parts I/II, Appendix I/IIB (refer to the TPWD and FWS tabs).

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

VOLUME 2 OF 6

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

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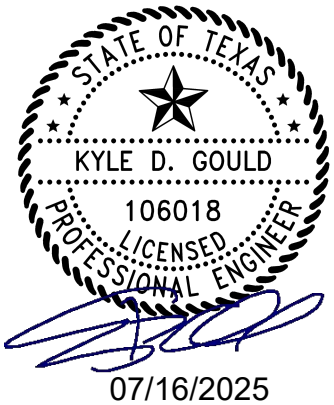

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WCG Project No. 0120-809-11-05

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CITY OF MEADOW LANDFILL
TERRY COUNTY
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIC
LEACHATE AND CONTAMINATED WATER MANAGEMENT PLAN

Prepared for

Meadow Landfill, LLC

August 2024
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Revised July 2025

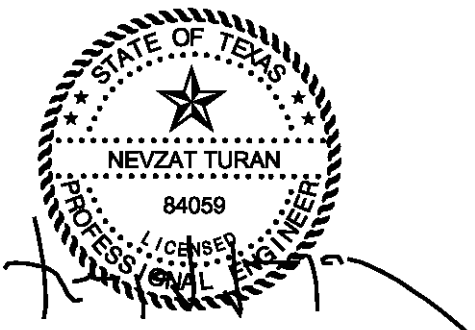

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Table 4-1
Sump Flow and Pump Operating Times

Sump Storage Summary			
Condition	Sectors 1 through 18[1]		
	Flow (gpd)	Pump Operating Time (hours/day)	Pump Capacity (gpm)
	Average[2]	Average[2]	
Active	353.9	0.6	10
Interim	880.3	1.5	10
Closed	187.1	0.3	10

[1] Sumps draining the largest LCS layer areas are shown. Refer to Appendix IIIC-B, Sheet IIIC-B-38 – Sump Drainage Areas for Sector layout and areas draining to each sump.
[2] Refer to Appendix IIIC-B, page IIIC-B-34 for sump design calculations.

4.2 Contaminated Water Management

Contaminated water will be contained at the working face as shown in Appendix IIIC-C. A vacuum truck or similar vehicle will remove contaminated water from this area. Contaminated water will then be transported via tanker trucks to a properly permitted offsite wastewater treatment facility. Contaminated water may be stored in the leachate tank or sent to evaporation ponds; however, comingled contaminated water and leachate will not be recirculated (refer to Section 5.2).

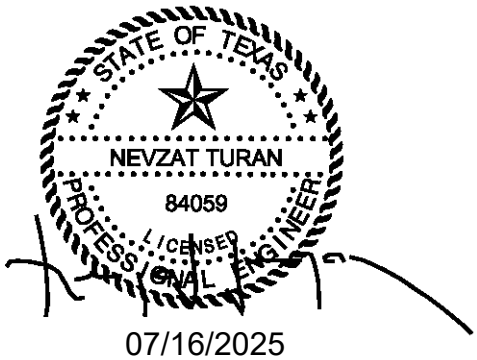
4.3 Onsite Storage Tank(s) and Evaporation Ponds

The proposed minimum 21,000-gallon leachate storage tank and evaporation ponds will provide enough storage capacity for the leachate expected to be generated at the site. Contaminated water and landfill gas condensate will also be stored in the leachate tank or evaporation ponds as discussed in Sections 5.3 and 5.4. The storage tank and evaporation ponds will be emptied, as required, to maintain capacity for the leachate currently generated at the site. The leachate level in the tank will be managed to provide a minimum of 15,000 gallons of emergency backup storage capacity. The leachate level in the evaporation pond will be managed to provide a minimum of 2 feet of freeboard.

Leachate storage capacity calculations are provided in Appendix IIIC-D. The tank is equipped with a liquid-level sensor and a high-level alarm to prevent overfill. When the high level alarm is triggered, a light on the tank will start flashing, which will

APPENDIX IIIC-B

LEACHATE COLLECTION SYSTEM DESIGN CALCULATIONS



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2. Determine the minimum drainage capacity of the chimney drain.

Minimum drainage capacity of the chimney drain per unit length (1 ft):

$$Q_{ult} = k * i * w * 1$$

where:

Q_{ult} = Ultimate flow rate
k = Minimum permeability of the geotextile wrap
i = Hydraulic gradient = 1 under free drainage
w = Width of the chimney drain keyed into the waste layer, measured at the top of protective layer, min. 4 ft, as shown in Appendix IIIA-A, Drawing A.4

k =	0.2	cm/s	=	6.56E-03 fps	(Ref. 1)
i =	1				
w =	4	ft			

Q_{ult} = 2.62E-02 cfs

To determine the allowable drainage capacity of the geotextile, the following reduction factors are used:

Table 1 - Reduction Factors[1]

RF_{SCB} =	Reduction factor for soil clogging and blinding	2.0
RF_{CR} =	Reduction factor for creep reduction of void space	2.0
RF_{IN} =	Reduction factor for adjacent materials intruding into void spaces	1.2
RF_{CC} =	Reduction factor for chemical clogging	1.5
RF_{BC} =	Reduction factor for biological clogging	2.0
	Overall Reduction Factor (ORF) =	14.4

[1] Reduction factors obtained from Ref. 2.

$$Q_{allow} = Q_{ult} / ORF$$

where:

Q_{allow} = Allowable flow rate
Q_{ult} = Ultimate flow rate
ORF = Overall reduction factor from Table 1

Q_{allow} = 1.82E-03 cfs

Q_{allow} = 1.82E-03 cfs >> Q_{req} = 3.77E-06 cfs

The predicted flow does not exceed the capacity of the chimney drain geotextile. The chimney drain design is adequate to convey the generated leachate to the leachate collection pipe.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIID
LINER QUALITY CONTROL PLAN

Prepared for

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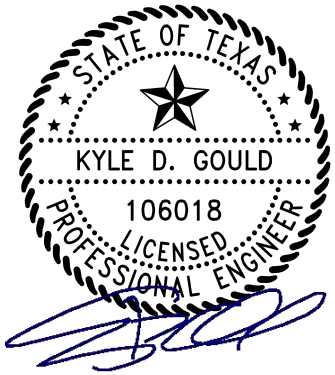

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2 CONSTRUCTION QUALITY ASSURANCE FOR EARTHWORK AND DRAINAGE AGGREGATES

2.1 Introduction

This section of the LQCP addresses the construction of the soil and drainage components of the liner system and outlines the LQCP program to be implemented with regard to materials selection and evaluation, laboratory test requirements, field test requirements, and treatment of problems.

The scope of earthwork and related construction quality assurance includes the following elements:

- Subgrade preparation
- Soil liner stockpile
- Soil liner placement
- General fill
- Drainage aggregates
- Anchor trench backfill

2.2 Composite Liner

The landfill is designed to include a Subtitle D composite liner for the undeveloped liner area. The liner system for the undeveloped area will consist of a 2-foot-thick compacted clay liner and a 60-mil-thick high-density polyethylene (HDPE) Flexible Membrane Liner (FML). A GCL may be used in lieu of the 2-foot-thick compacted clay liner.

The liner systems are detailed in Appendix IIIA – Landfill Unit Design Information. A structural stability analysis for the liner system, including calculations for anchor trench runout lengths, stress on the liner components, and an interface slope stability analysis, is included in Appendix IIIE – Geotechnical Report. A ballast demonstration for the liner system has been provided in Appendix IIID-B to demonstrate that the landfill cells will be adequately ballasted against potential uplift from groundwater.

- The reports will be signed and stamped by a professional engineer(s) licensed to practice in the state of Texas.

The as-built record drawings will accurately identify the constructed location of all work items, including the piping and anchor trenches. The POR will review and verify that as-built drawings are correct. As-built drawings will be included in the SLER, GCLER, and GLER as appropriate.

7.2 Reporting Requirements

The SLER, GCLER, and GLER will be signed and sealed by the POR and signed by the Site Manager and submitted in triplicate (including all attachments) to the MSW Permits Section of the Waste Permits Division of the TCEQ for review and acceptance. If the Executive Director provides no response, either written or verbal, within 14 days of receipt, the owner or operator may continue facility construction or operation. Any notice of deficiency received from the TCEQ will be promptly addressed and incorporated into the SLER/GCLER/GLER report. No solid waste will be placed over the constructed liner areas until the final acceptance is obtained from the TCEQ. Additionally, upon approval of this application if a new liner area is developed, prior to accepting any solid waste to the newly developed liner area, a pre-opening inspection will be requested. The TCEQ staff will conduct a pre-opening inspection within 14 days of the request. If the TCEQ does not provide a written or verbal response 14 days after conducting the pre-opening inspection, the newly developed liner area will be considered acceptable for solid waste placement, given that the SLER, GCLER, and GLER for the area are also submitted to the TCEQ in accordance with this section.

Title 30 TAC §330.341(d) requires that any constructed soil liner left uncovered or unprotected for a period of 6 months or longer must be inspected by the POR, and a letter report of findings be submitted to the executive director. The regulation also requires that any repairs be performed promptly, and a letter report documenting the repairs be submitted for the constructed soil liner requiring repairs. These requirements will be observed during and after soil liner construction.

An Interim Status Report will be prepared for any constructed liner that has received protective cover and waste has not been placed over the protective cover within six months of the initial placement of the protective cover. The liner will be

evaluated by the geotechnical POR and an Interim Status Report will be submitted to the TCEQ documenting the findings of the evaluation. If required, repairs to the liner and/or protective cover will be performed promptly and a report documenting the repairs will be submitted to the TCEQ.

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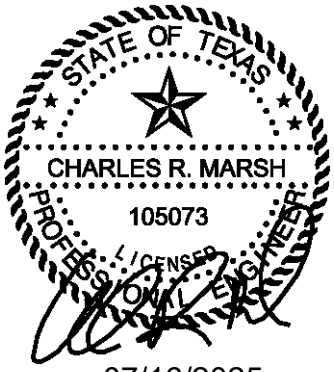

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CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIF
SURFACE WATER DRAINAGE PLAN

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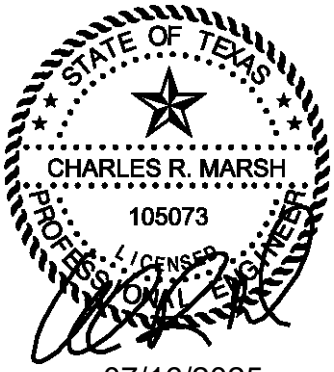

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- Removal of obstructions from drainage features.
- Removal of silt and sediment build-up from drainage features.
- Repairs to erosion and sedimentation controls.
- Installation of additional erosion and sedimentation controls.

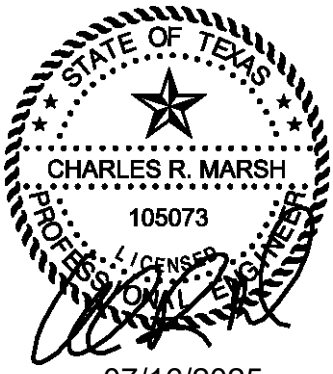
2.4 Floodplain

As a part of the proposed expansion, a CLOMR was prepared for the landfill area as the proposed development areas include the 100-year floodplain. The current effective FEMA Flood Insurance Rate Map for the area of the landfill is provided on Figure 4.6 and excerpts from the approved CLOMR and the FEMA approval letter are included in Appendix IIIF-G. The 100-year floodplain related design and demonstrations developed as part of this application meet the requirements set forth in 30 TAC §330.307. As shown in Appendix IIIF-G, the 100-year floodplain will be contained around the landfill footprint and will not encroach on the limit of waste. The CLOMR is currently under review by FEMA, and a copy of the approval letter will be incorporated into Appendix IIIF-G Excerpts from CLOMR once it is received.

APPENDIX IIIF-D

EROSION LAYER EVALUATION

Includes pages IIIF-D-1 through IIIF-D-33



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EROSION LAYER EVALUATION

This appendix presents the supporting documentation for evaluation of the thickness of the erosion layer for the final cover system at the City of Meadow Landfill. The evaluation is based on the premise of adding excess soil to increase the time required before maintenance is needed as recommended in the EPA Solid Waste Disposal Facility Criteria Technical Manual (EPA 530-R-93-017, November 1993).

The design procedure is as follows:

1. Minimum thickness of the erosion layer at the end of the 30-year postclosure period is evaluated based on the depth of frost penetration or 6 inches, whichever is greater (6 inches is the minimum thickness required by 30 TAC §330.457(a)(3)). For Terry County, the approximate depth of frost penetration is approximately 5 inches (see IIIF-D-17). The maximum frost depth for Terry County is 12 inches. Although frost depth is not specifically required by rule, a 12-inch thick (minimum) erosion layer is specified to protect the compacted clay/GCL infiltration layer. Note that the drainage geocomposite and 40 mil LLDPE geomembrane also provide further protection for the infiltration layer. As summarized in GSI White Paper 28, freeze thaw conditions will not adversely affect geomembrane sheets or their seaming. Therefore, the minimum erosion layer thickness is 12 inches.

2. Soil loss is calculated using the Universal Soil Loss Equation (USLE) by following SCS procedures. The soil loss is adjusted by a safety factor of 2 and is then converted to a thickness. The thickness of the soil loss over a 30-year postclosure period is added to the minimum thickness of the erosion layer (from Step 1) to yield an initial thickness to be placed at closure of the site. According to the USLE, the typical 5 percent topslope and 25 percent side slope require a minimum of 6.121 inches, 6.91 inches, respectively, for the erosion layer. These USLE requirements include the 6-inch minimum required by regulations. Conservatively, a 12-inch erosion layer is proposed over final cover. These calculations begin on page IIIF-D-3.

3. Stormwater flows over the final cover system by (1) sheet flow over the topslope and sideslopes and (2) channelized flow in the drainage berms (or swales). As discussed in Section 2.2 and Appendix IIIF-C, flow also occurs in the letdown structures. The letdown structures are lined with gabions to prevent erosion given that the velocities in the letdowns are over 5 ft/sec.

Sheet flow velocities for the topslope and sideslope cases for a 25-year storm event are calculated to be less than permissible nonerosive velocities. A permissible nonerosive velocity is defined as 5.0 ft/sec or less. Calculated sheet flow velocities range from 0.92 to 1.34 ft/sec for topslope and sideslope cases. The supporting calculations are presented on pages IIIF-D-22 through IIIF-D-24.

Channelized flow for drainage swales is also calculated to be less than permissible nonerosive velocities. Calculated channelized flow velocities range from 2.42 to 3.22 ft/sec for the drainage swales. The supporting calculations are presented on pages IIIF-C-2 through IIIF-C-6.

4. Vegetation for the site will be native and introduced grasses with root depths of 6 inches to 8 inches. The erosion layer shall also include a mixture of Bermuda, vetch, rye, wheat grass, wild flowers, and flowering plants. The seeding is specified on the attached pages IIIF-D-28 through IIIF-D-34. The seeding is specified by TxDOT for temporary and permanent erosion control for Terry County, Texas (Lubbock).

5. Native and introduced grasses will be hydroseeded with fertilizer on the disked (parallel to contours) erosion layer upon final grading. Temporary cold weather vegetation will be established if needed. Irrigation will be employed for 6 to 8 weeks or until vegetation is well established. Erosion control measures such as silt fences and straw bales will be used to minimize erosion until the vegetation is established. Areas that experience erosion or do not readily vegetate after hydroseeding will be reseeded until vegetation is established or the soil will be replaced with soil that will support the grasses.

6. Slope stability information is included in Appendix IIIE.

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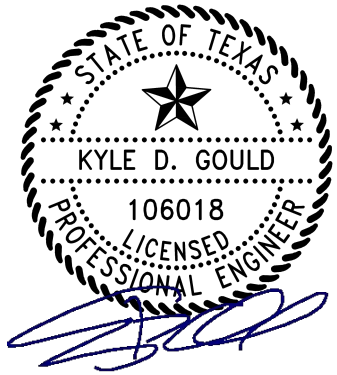

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PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ
CLOSURE PLAN

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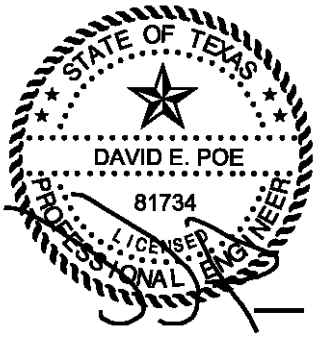

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2 FINAL COVER SYSTEM

2.1 Introduction

The final cover system for the City of Meadow Landfill has been developed to incorporate the requirements of Title 30 TAC §330.457(f)(4). The rules state that the owner or operator of an MSW landfill unit shall complete closure activities for the unit in accordance with the approved closure plan within 180 days following the initiation of closure activities (closure activities for MSW landfill units shall begin no later than 30 days after the date on which the unit receives the known final receipt of wastes, or, if the unit has remaining capacity and there is a reasonable likelihood that the unit will receive additional wastes, no later than one year after the most recent receipt of wastes). Closure will include installation of a final cover system and storm water runoff controls. The storm water runoff controls are addressed in Appendix IIIF – Surface Water Drainage Plan. The final cover system design is discussed below and is also detailed in Appendix IIIA-A. Cross-sections are provided in Appendix IIIA-B.

2.2 Final Cover System Design

The final cover system will consist of a composite final cover system for the Subtitle D areas. The final cover system will provide a low maintenance cover, protect against erosion, reduce rainfall percolation through the cover system and subsequently minimize leachate generation within the landfill. As depicted on Figure IIIJ-1 (and Drawing A.2 – Landfill Completion Plan in Appendix IIIA-A), a maximum slope of 5 percent is provided for the top slopes. Typical sideslopes of 4H:1V are provided to control erosion and facilitate drainage of the landfill.

Composite Final Cover System

- A 12-inch-thick earthen material erosion layer capable of sustaining vegetative growth. The vegetation will consist of native or introduced grasses, as well as a mixture of wild flowers, and other flowering plants capable of providing 80 percent coverage over the final cover. The minimum vegetation coverage of 80 percent will be established at closure and maintained throughout the post-closure care period.

4 SCHEDULE OF FACILITY FINAL CLOSURE

4.1 Final Closure Requirements

The site will be closed in an orderly fashion consistent with Title 30 TAC §330.457 and §330.461 implementing the following steps:

- No later than 90 days prior to initiation of final closure activities for the municipal solid waste landfill (MSWLF) facility, the Executive Director of TCEQ will be notified of the intent to close the facility and that a notice of the intent to close the unit has been placed in the operating record.
- No later than 90 days prior to initiation of final facility closure, a public notice of facility closure which contains the name, address, and physical location of the facility, the permit number, and the last date of intended receipt of waste, will be provided in the newspaper of the largest circulation in the vicinity of the facility. Meadow Landfill, LLC will also make available a copy of the approved final closure and postclosure plan at the landfill office for public access and review. Additional copies (as needed) of the closure and post-closure plans will be made available by owner for public access and review.
- Consistent with Title 30 TAC §330.461(b) and following notification of the Executive Director of TCEQ, a minimum of one sign will be posted at the main entrance and all other frequently used points of access for the facility notifying all persons utilizing the facility of the closure date or date after which further receipt of waste is prohibited. In addition, access control is provided by perimeter fencing and a locked gate following the closure date to prevent unauthorized disposal or dumping of solid waste at the facility.
- Final closure activities will commence for the MSWLF facility no later than 30 days after the date the MSWLF facility receives the known final receipt of wastes. If the MSWLF facility has remaining capacity and there is a reasonable likelihood that the MSWLF facility will receive additional wastes, final closure activities will commence no later than 1 year after the most recent receipt of wastes. The timeline for commencement of closure activities as described in this section is applicable to the Liquid Waste Bulking Facility (Section 3.4) and Citizens Convenience Center (Section 3.5). The timeline for commencement of decommissioning and demolition of the leachate storage tanks, evaporation ponds and piping is set forth in Section 3.5 of this appendix.
- Final closure activities of the MSWLF facility will be completed in accordance with the Closure Plan (this appendix) within 180 days following the initiation of closure activities as defined in Title 30 TAC §330.457(f)(3) and will include closure of all facilities described in Section 3 of this appendix. If necessary, as noted in Title 30 TAC §330.457(f)(4), a request for an extension of the completion of final closure activities may be submitted and granted by the

Executive Director. The request will include all applicable documentation necessary to demonstrate that final closure will take longer than 180 days and all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed site.

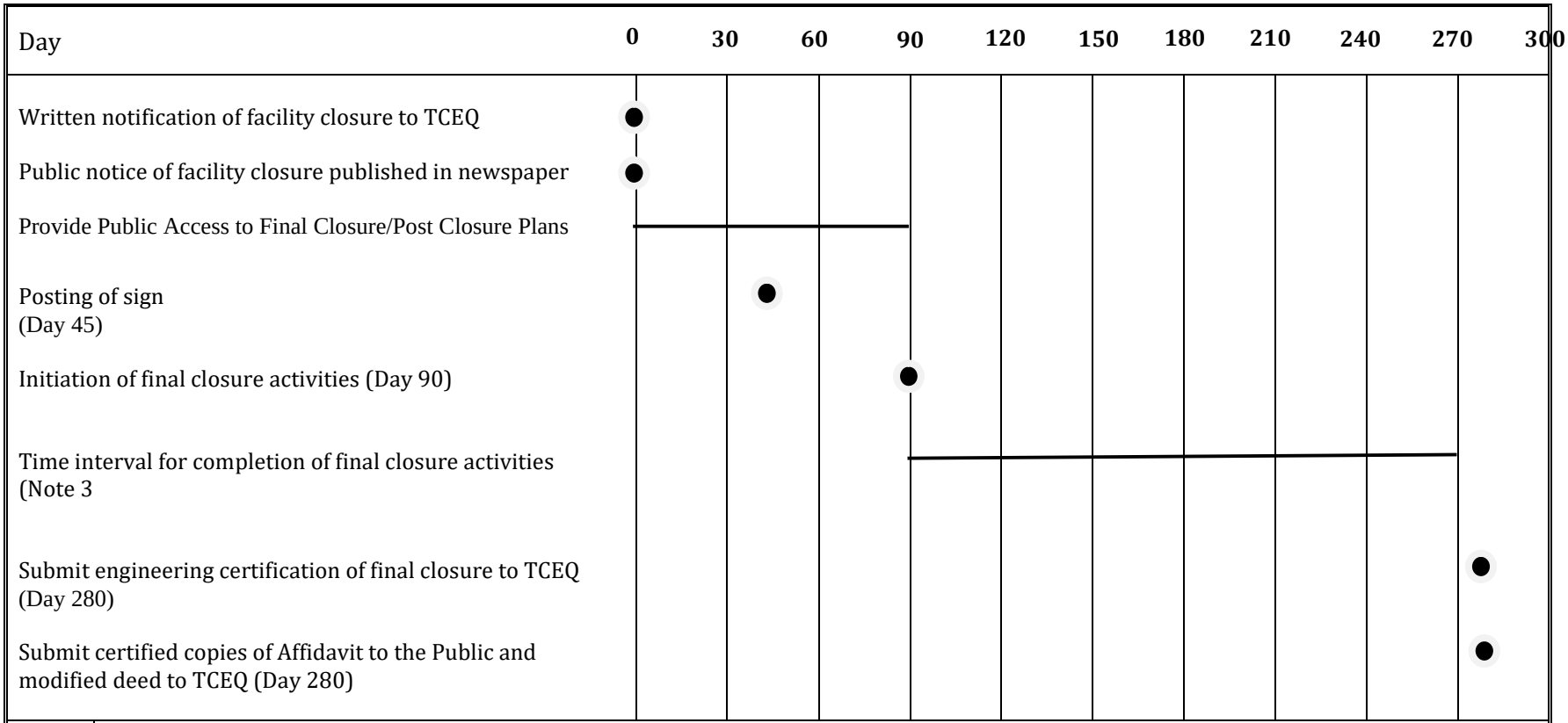
- Final closure activities and timelines, as described in this section, will include decommissioning and closure of the Liquid Waste Bulking Facility and the Citizens Convenience Center (as described in Sections 3.4 and 3.5 of this section, respectively). As described in Section 3.3 of this section, the leachate storage tanks, evaporation ponds and piping will remain operational (as required) during the postclosure period and will be demolished and the debris disposed at a permitted disposal facility at the time the postclosure period has ended and the TCEQ has approved the cessation of postclosure care of the facility.
- Following completion of final closure activities of the MSWLF unit, the facility will comply with the post-closure care requirements specified in Title 30 TAC §330.463(b). Within ten days after completion of final closure activities, a documented certification, signed by an independent licensed professional engineer, will be submitted to the Executive Director of the TCEQ for review and approval. This certification will verify that final closure has been completed in accordance with the approved final closure plan and will include all applicable documentation necessary for certification of final closure. Once approved, this certification will be placed in the Site Operating Record.
- Within 10 days after completion of final closure activities of the facility, a certified copy of an Affidavit to the Public (most current format provided by the TCEQ will be used) will be submitted to the Executive Director of the TCEQ by registered mail and placed in the facility's site operating record. In addition, a certified notation will be recorded on the deed to the facility that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill facility and the use of the land is restricted according to the provisions specified in Section 4 of Appendix IIIK – Postclosure Care Plan. Within 10 days after completion of final closure activities of the facility, a certified copy of the modified deed will be submitted to the Executive Director and placed in the operating record.

Following receipt of the required final closure documents and an inspection report from the TCEQ Regional Office verifying proper closure of the MSWLF facility according to this Closure Plan (this appendix), the Executive Director may acknowledge the termination of operation and closure of the facility and deem it properly closed. The steps in the closure process are depicted on Figure IIIJ-3 – Final Closure Schedule. Consistent with Title 30 TAC §330.461(c)(2), a professional engineer certification will be submitted to TCEQ within 10 days of completion of closure. In accordance with Title 30 TAC §330.463(b), the postclosure care period begins immediately upon the date of final closure.

4.2 Provisions for Extending Closure Period

If the City of Meadow Landfill has remaining capacity at the time of its closure, final closure activities will begin no later than one year after the most recent receipt of wastes. A request for an extension beyond the one-year deadline for the initiation of final closure may be submitted to the Executive Director for review and approval and will include all applicable documentation to demonstrate that the unit or site has the capacity to receive additional waste, and that the City of Meadow Landfill has taken all steps necessary to prevent threats to human health and the environment.

City of Meadow Landfill
Figure IIIJ-2 – Final Closure Schedule



Notes: (1) Schedule is based on anticipated date of beginning final closure activities. Heavy vertical line signifies final receipt of waste. Schedule is shown for reference purposes only. (2) Implementation of closure activities shall follow the TCEQ-approved closure plan and applicable rules. (3) Completion of closure may be extended as described in Section 4.2 of this appendix.

Period ——— Milestone ●

CITY OF MEADOW LANDFILL
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PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ-A
FINAL COVER SYSTEM QUALITY CONTROL PLAN

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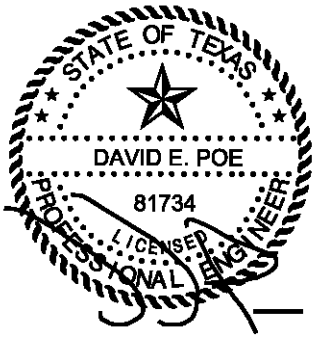

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Table 3-1
Required Testing and Properties for GCL Materials[1]

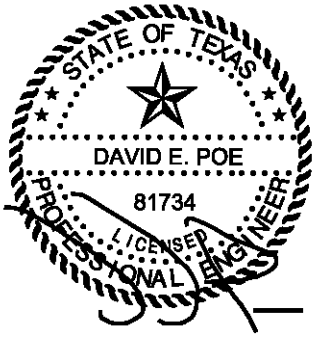
Tester	Test[11]	Property	Required Values	Standard Test Method	Frequency of Testing[9]
Supplier or GCL Manufacturer	Bentonite	Free Swell (ml/2g)	≥24	ASTM D 5890	Per 50 tons and every truck or railcar
		Fluid Loss (ml)	≤18	ASTM D 5891	
	Geotextile	Mass Unit/Unit Area (oz/sy)	≥5.9/3	ASTM D 5261	per 200,000 ft^2
		Tensile Strength at Break[3] (%)	≥65	ASTM D 6768	
GCL Manufacturer's	GCL Product	Clay Mass/Unit Area[4] (lb/sf)	≥0.75	ASTM D 5993	per 40,000 ft^2
		Bentonite Moisture Content[2] (%)	≤35	ASTM D 5993	
		Tensile Strength[6] (lb/in)	≥23	ASTM D 6768	per 200,000 ft^2
		Permeability[5] (cm/s)	≤5x10^{-9}	ASTM D 5887	Per week for each production line
		Lap Joint Permeability(cm/s)	≤5x10^{-9}	Flow box or other suitable device	Per GCL adjoining material and lap type[7]
Independent Laboratory (Conformance Testing)	GCL Product	Clay Mass/Unit Area (lb/sf)	≥0.75	ASTM D 5993	Per 100,000 ft^2
		Permeability[7] (cm/s)	≤5x10^{-9}	ASTM D 5887	
		Direct Shear[8]	Refer to Section 6 for required values		

1 Tests and required values are developed using GRI – GCL3 – Test Methods, Required Properties, and Testing Frequencies of Geosynthetic Clay Liners (GCLs) – see also Note 10.
2 Not used.
3 The geotextiles in their as-received condition are evaluated by incubation in a forced air oven set at 60° C for 50 days, per ASTM D 5721. If individual yarns are used in reinforcing GCLs, they must also meet this same endurance criterion.
4 Bentonite is measured after oven drying per the stated test method.
5 Report last 20 permeability values, ending on production date of supplied GCL.
6 May also be performed as conformance testing.
7 Test at confining/consolidating pressures simulating field conditions for ASTM D 5887.
8 Not applicable for slopes of 7H:1V or flatter. Testing must be on material in hydrated state unless GCL is to include geomembrane on both sides of GCL, and must use strain rates, confining pressures, and other parameters which simulate field conditions. Only reinforced GCL (bentonite encapsulated between two geotextiles, one nonwoven and one woven, which are needle punched together) will be used for final cover.
9 Testing frequency is based on GRI-GCL3.
10 Sampling of GCL products for laboratory testing will be in accordance with ASTM D 6072.

APPENDIX IIIJ-A-A

FINAL COVER DRAINAGE LAYER DESIGN

Includes pages IIIJ-A-A-1 through IIIJ-A-A-51



07/16/2025

		CLOSED SIDESLOPE (25%)	CLOSED TOPSLOPE (5%)	CLOSED SIDESLOPE TRANSITION	CLOSED TOPSLOPE TRANSITION
GENERAL	Case No.	1	2	3	4
INFORMATION	Output Page	IIIJ-A-A-18	IIIJ-A-A-25	IIIJ-A-A-32	IIIJ-A-A-39
	No. of Years	30	30	30	30
	Ground Cover	GOOD	GOOD	GOOD	GOOD
	SCS Runoff Curve No.	82.4	80.6	81.7	81.3
	Model Area (acre)	1.0	1.0	1.0	1.0
	Runoff Area (%)	100	100	100	100
	Maximum Leaf Area Index	4.5	4.5	4.5	4.5
	Evaporative Zone Depth (inch)	12	12	12	12
EROSION	Thickness (in)	12	12	12	12
LAYER	Porosity (vol/vol)	0.3980	0.3980	0.3980	0.3980
(Texture = 10)	Field Capacity (vol/vol)	0.2440	0.2440	0.2440	0.2440
	Wilting Point (vol/vol)	0.1360	0.1360	0.1360	0.1360
	Init. Moisture Content (vol/vol)	0.2440	0.2440	0.2440	0.2440
	Hyd. Conductivity (cm/s)	1.2E-04	1.2E-04	1.2E-04	1.2E-04
DRAINAGE	Thickness (in)	0.250	0.250	0.250	0.250
LAYER	Porosity (vol/vol)	0.8500	0.8500	0.8500	0.8500
(Texture = 0)	Field Capacity (vol/vol)	0.0100	0.0100	0.0100	0.0100
	Wilting Point (vol/vol)	0.0050	0.0050	0.0050	0.0050
	Init. Moisture Content (vol/vol)	0.0100	0.0100	0.0100	0.0100
	Hyd. Conductivity (cm/s)	19.43	6.63	19.43	6.63
	Slope (%)	25	5	25	5
	Slope Length (ft)	140	350	270	185
FLEXIBLE	Thickness (in)	0.04	0.04	0.04	0.04
MEMBRANE	Hyd. Conductivity (cm/s)	4.0E-13	4.0E-13	4.0E-13	4.0E-13
LINER	Pinhole Density (holes/acre)	0	0	0	0
(Texture = 36)	Install. Defects (holes/acre)	0	0	0	0
	Placement Quality	GOOD	GOOD	GOOD	GOOD
INFILTRATION	Thickness (in)	18	18	18	18
LAYER	Porosity (vol/vol)	0.4270	0.4270	0.4270	0.4270
(Texture = 0)	Field Capacity (vol/vol)	0.4180	0.4180	0.4180	0.4180
	Wilting Point (vol/vol)	0.3670	0.3670	0.3670	0.3670
	Init. Moisture Content (vol/vol)	0.4270	0.4270	0.4270	0.4270
	Hyd. Conductivity (cm/s)	1.0E-05	1.0E-05	1.0E-05	1.0E-05
PRECIPITATION	Average Annual (in)	17.93	17.93	17.93	17.93
RUNOFF	Average Annual (in)	0.360	0.224	0.323	0.260
EVAPOTRANSPIRATION	Average Annual (in)	16.59	16.60	16.62	16.57
LATERAL	Average Annual (cf/year)	3,692	4,137	3,725	4,138
DRAINAGE COLLECTED[1]	Peak Daily (cf/day)	2,908	4,858	3,067	4,677
LATERAL DRAINAGE	Peak Daily (in)	0.801	1.338	0.845	1.288
COLLECTED	Peak Daily (ft)	0.067	0.112	0.070	0.107
HEAD ON FINAL	Average Annual (in)	0.000	0.003	0.000	0.001
COVER GEOMEMBRANE[2]	Peak Daily (in)	0.008	8.931	0.017	0.949

[1] This is the lateral drainage collected in the drainage geocomposite in the final cover system.

[2]Infinite slope stability analysis for the final cover system was performed assuming a maximum hydraulic head of 12 inches, which is greater than the peak daily value shown in the table and hence conservative. The infinite slope stability analysis for the final cover is presented in Appendix IIIE-A-4.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

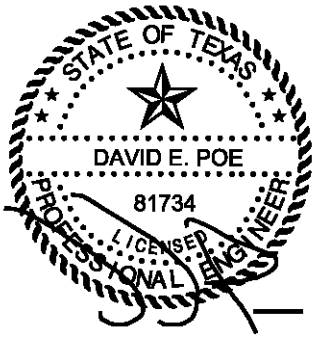
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIJ-B
GCL ALTERNATIVE FINAL COVER DEMONSTRATION

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



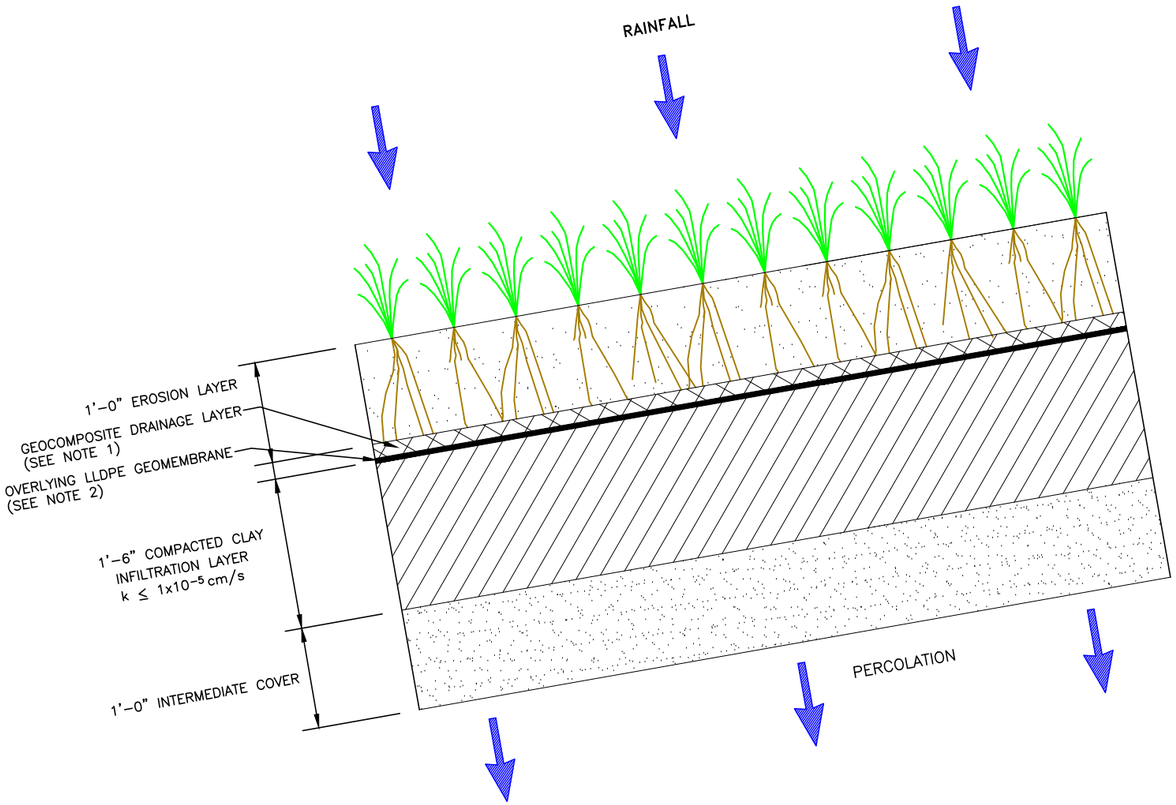
07/16/2025

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

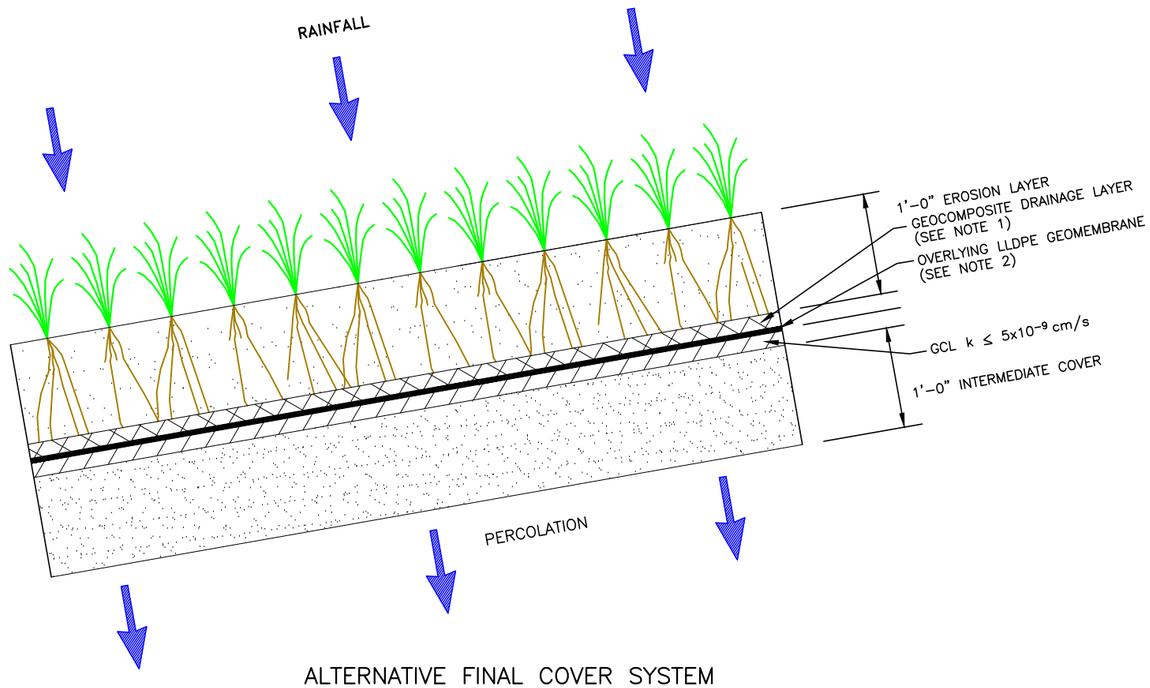
WBC Project No. 0120-809-11-05

AVERAGE ANNUAL RAINFALL = 17.93 IN/YEAR



COMPOSITE FINAL COVER SYSTEM

	TOP SLOPE	SIDE SLOPE
AVERAGE ANNUAL PERCOLATION (IN/YEAR)=	0.00008	0.00000
PEAK DAILY PERCOLATION (IN/DAY)=	0.00035	0.000000

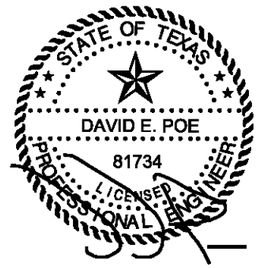


ALTERNATIVE FINAL COVER SYSTEM

	TOP SLOPE	SIDE SLOPE
AVERAGE ANNUAL PERCOLATION (IN/YEAR)=	0.00000	0.00000
PEAK DAILY PERCOLATION (IN/DAY)=	0.000006	0.000000

NOTES:

1. THE FINAL COVER GEOCOMPOSITE DRAINAGE LAYER DESIGN IS INCLUDED IN APPENDIX IIIJ–A–A AND DESIGN CONSISTS OF SINGLE–SIDED GEOCOMPOSITE FOR THE TOP SLOPES AND DOUBLE–SIDED GEOCOMPOSITE FOR THE SIDE SLOPES.
2. THE OVERLYING LLDPE GEOMEMBRANE LINER DESIGN CONSISTS OF SMOOTH OR TEXTURED 40–MIL LLDPE FOR THE TOP SLOPES AND TEXTURED 40–MIL LLDPE FOR THE SIDE SLOPES.
3. THIS GRAPHIC IS DEVELOPED TO COMPARE THE COMPOSITE FINAL COVER SYSTEM AND ALTERNATIVE FINAL COVER SYSTEM PERCOLATION RATES THROUGH THE BOTTOM OF THE INFILTRATION AND GCL LAYERS, RESPECTIVELY.



07/16/2025

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120–076–11
CAD: FIG IIIJ–B.1–DEMO. COMPARISON.DWG

DRAWN BY: JDW
DESIGN BY: BPY
REVIEWED BY: DEP

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS

NO.	DATE	DESCRIPTION
1	02/2025	1ST TCEQ COMMENT RESPONSE
2	07/2025	2ND TCEQ COMMENT RESPONSE

MAJOR PERMIT AMENDMENT
ALTERNATIVE FINAL COVER DEMONSTRATION COMPARISON

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE IIIJ–B.1

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

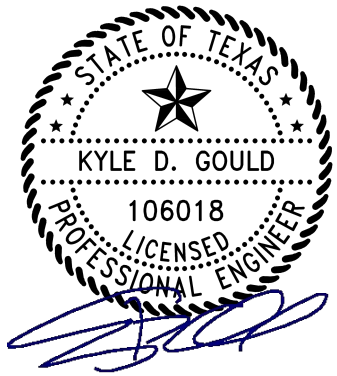
PART III – SITE DEVELOPMENT PLAN
APPENDIX IIIL
CLOSURE AND POSTCLOSURE CARE COST ESTIMATES

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

Prepared by

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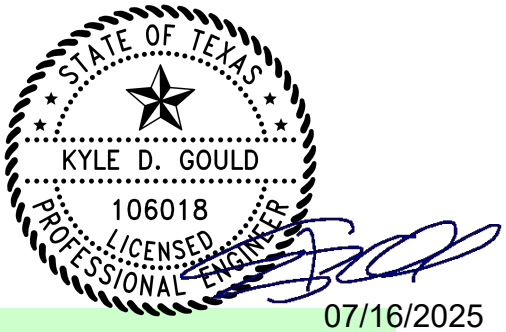
817-735-9770

WCG Project No. 0120-809-11-05

This document intended for permitting purposes only.



07/16/2025

TABLE 1
CITY OF MEADOW LANDFILL - CLOSURE COST

Area Requiring Final Cover	45.0	ac			
Trench Final Cover Area	45.0	ac	Infiltration Layer Thickness	1.50	ft (Trench Area
Composite Topslope Area	0.0	ac	Infiltration Layer Thickness	1.50	ft (Comp. Area)
Composite Sideslope Area	0.0	ac	Erosion Layer Thickness	0.5	ft (Trench Area
Permit Boundary Area	337.9	ac	Erosion Layer Thickness	1.0	ft (Comp. Area)

Description	Quantity	Unit[1]	2024 Unit Cost[2]	Inflation Factor[3]	2024 Unit Cost	Proposed Total (2024)
1.0 ENGINEERING						
1.1 Topographic Survey	1	LS	$ 5,180	1.000	$ 5,180	**$ 5,180**
1.2 Boundary Survey for Affidavit	337.9	AC	$ 67	1.000	$ 67	**$ 22,754**
1.3 Site Evaluation	337.9	AC	$ 730	1.000	$ 730	**$ 246,795**
1.4 Development of Plans	45	AC	$ 616	1.000	$ 616	**$ 27,739**
Subtotal						**$ 302,468**
1.5a Contract Administration	1	5%		1.000		**$ 15,123**
1.5b Admin. Cost for Certification of Final Cover and Affidavit to the Public	1	5%		1.000		**$ 15,123**
1.6 Closure Inspection	45.0	AC	$ 1,886	1.000	$ 1,886	**$ 84,848**
1.7 TPDES and other Permits	1	LS	$ 7,252	1.000	$ 7,252	**$ 7,252**
1.8 Additional Costs						**$ -**
1.9 ENGINEERING COSTS SUBTOTAL						**$ 424,816**
2.0 CONSTRUCTION[4]						
2.1 Mobilization of Personnel and Equipment		5%	of Item 1.9			**$ 21,241**
2.2 Final Cover System						**$ -**
2.2.1 Final Cover - Side Slope Cover - Not Used						**$ -**
2.2.2 Final Cover - Top Slope Cover						**$ -**
2.2.2a Infiltration Layer - Compacted Clay	108,900	CY	$ 6.01	1.000	$ 6.01	**$ 654,489**
2.2.1g Erosion Layer	36,300	CY	$ 3.89	1.000	$ 3.89	**$ 141,207**
2.2.1h Vegetation	45.0	AC	$ 1,031	1.000	$ 1,031	**$ 46,387**
2.3 Site Grading	45.0	AC	$ 1,715	1.000	$ 1,715	**$ 77,156**
2.4 Site Fencing and Security	-	LF	$ -	1.000	$ -	**$ -**
2.5 Landfill Gas Monitoring and Control System	-	Wells	$ -	1.000	$ -	**$ -**
2.6 Groundwater Monitoring System	24	Wells	$ 30,000	1.000	$ 30,000	**$ 720,000**
2.7 Leachate Management	-	LS	$ -	1.000	$ -	
2.8 Stormwater Management	-	LS	$ -	1.000	$ -	
2.9 Additional Construction Cost Items						
2.10 CONSTRUCTION COSTS SUBTOTAL						**$ 1,660,480**
3.0 STORAGE AND PROCESSING UNIT CLOSURE COSTS						
4.0 SUM OF CLOSURE COST SUBTOTALS						**$ 2,085,296**
5.0 CONTINGENCY		10%	of Item 4			**$ 208,530**
6.0 CONTRACT PERFORMANCE BOND		2.0%	of Item 4			**$ 41,706**
7.0 THIRD PARTY ADMINISTRATION AND PROJECT MANAGEMENT COSTS		2.5%	of Item 4			**$ 52,132**
8.0 TOTAL CLOSURE COST						**$ 2,387,663**

[1] N/A = not applicable, LS = lump sum, AC = acres, CY = cubic yards, SF = square feet.

[2] Unit Costs are in 2024 dollars. Unit costs are based on current market conditions, typical engineering costs and industry standards related to construction, and reflect input from Republic Services and Weaver Consultants Group, LLC.

[3] Inflation factor is a product of the annual percentage change for each year as published by the TCEQ. Inflation factor will be used during future updating of CPC Cost Estimates.

[4] Table will be expanded in the future to incorporate additional line items for new components that are required for landfill closure.

4 COST ESTIMATE ADJUSTMENTS

During the active life of the site, Meadow Landfill will annually adjust the cost estimates for inflation and for changes to the facility conditions that increase the cost of closure. The adjustment may be made by recalculating the maximum costs of closure and postclosure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the United States Department of Commence in its Survey of Current Business. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year. The first adjustment is made by multiplying the closure and postclosure cost estimates by the inflation factor. The result is the adjusted closure and postclosure cost estimates. Subsequent adjustments are made by multiplying the latest adjusted closure and postclosure estimates by the latest inflation factor.

An increase in the closure or postclosure cost estimate and the amount of financial assurance will be made if changes to the final closure or postclosure care plan or the landfill conditions increase the maximum cost. If only the maximum area requiring closure changes (i.e., increases due to liner construction), a permit modification to change the closure and postclosure care cost estimates will be submitted to TCEQ.

A reduction in the closure or postclosure care cost estimate and the amount of financial assurance may be submitted if the cost estimate exceeds the maximum costs of closure at any time during the remaining life of the unit or postclosure care remaining over the postclosure care period. Meadow Landfill, LLC, will submit written notice to the Executive Director of the detailed justification for the reduction of the cost estimates and the amount of financial assurance. A reduction in the cost estimate and financial assurance will be considered a permit modification and will not take effect until the permit modification has been submitted and approved by the Executive Director.

In the event that the facility were to enter into corrective action during the postclosure period, Meadow Landfill, LLC, will submit a corrective action cost estimate to the TCEQ in accordance with Title 30 TAC §330.509.

In accordance with Title 30 TAC §330.503 and §330.507, the closure and post-closure cost estimates will be reviewed and updated on an annual basis if the facility's permit conditions have changed (e.g, that the areas requiring closure or post-closure care do not match the current estimate, inflation costs), or if the landfill conditions increase the maximum cost of closure or post-closure (e.g., new cell construction, storage or processing units addition or revisions) at any time during the remaining active life of the unit. In accordance with Title 30 TAC §330.503(a) and §330.463(b)(3)(D), evidence of any additional financial assurance resulting from the annual revision of cost-estimates will be provided to the TCEQ.

TABLE 2
CITY OF MEADOW LANDFILL - POST-CLOSURE CARE COST

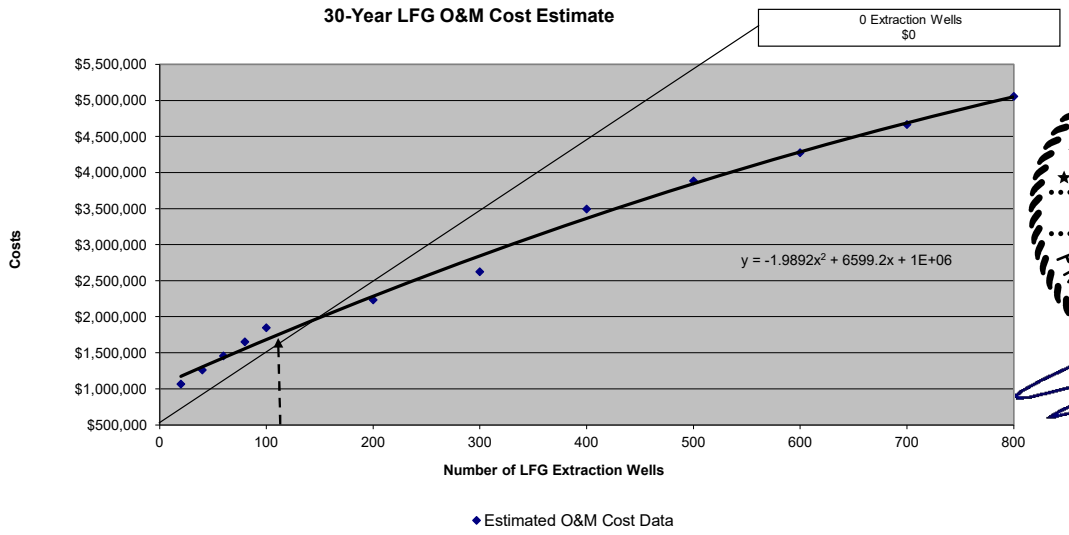
Permitted Waste Footprint	210.7	ac	Solid Waste Fill Area	45	
Area with leachate collection system	0	ac	Post Closure Care Period	30	
Groundwater Monitoring Wells	0	wells	Gas Monitoring Events	4	
Gas Probes	2	probes	GW Monitoring Events	2	
Area to be administratively closed	337.9	ac	Leachate Generation	0	

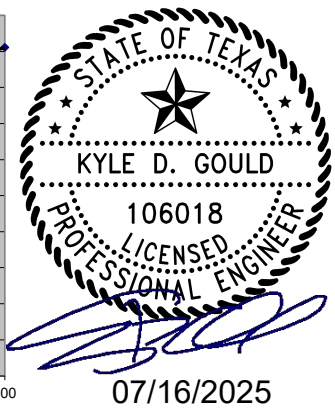
Description			Quantity	Unit[1]	2024 Unit Cost[2]	Inflation Factor[3]	2024 Unit Cost	
1.0	**ENGINEERING**							
1.1	Site Inspection and Recordkeeping (annual)		337.9	AC	$ 10.00	1.000	$ 10.00	$ 3,379
1.2	Correctional Plans and Specifications (annual)		337.9	AC	$ 14.00	1.000	$ 14.00	$ 4,731
1.3	Site Monitoring							
	1.3.1	Groundwater Monitoring System						
		1.3.1(a) Groundwater Monitoring (semiannual)	-	WELLS	$ -	1.000	$ -	$ -
	1.3.2	LFG Monitoring System						
		1.3.2(a) LFG Monitoring (quarterly)	4	EA	$ 350	1.000	$ 350	$ 1,400
		1.3.2(b) LFG Plugging and Abandonment	-	WELLS	$ -	1.000	$ -	$ -
	1.3.3	Surface Water Monitoring (quarterly)						
		1.3.3(a) Surface Water Monitoring (quarterly)	-	EA	$ -	1.000	$ -	$ -
1.4	Additional Engineering Cost Items							$ -
1.5	**ENGINEERING SUBTOTAL**							**$ 9,510**
2.0	**CONSTRUCTION / MAINTENANCE**							
2.1	Cap and Sideslope Repairs and Revegetation		45	AC	$ 210	1.000	$ 210	$ 9,450
2.2	Mowing and Vegetation Management		1	LS	$ 5,500	1.000	$ 5,500	$ 5,500
2.3	Groundwater Monitoring System Maintenance		0	LS	$ -	1.000	$ -	$ -
2.4	LFG Monitoring Probes Maintenance		0	LS	$ -	1.000	$ -	$ -
2.5	LFG Collection System Operations and Maintenance		0	LS	$ -	1.000	$ -	$ -
2.6	Perimeter Fence and Gates Maintenance		1	LS	$ 1,200	1.000	$ 1,200	$ 1,200
2.7	Access Roads Maintenance		1	LS	$ 2,000	1.000	$ 2,000	$ 2,000
2.9	Additional Construction and Maintenance Cost Items		-	-	-			
2.10	**CONSTRUCTION AND MAINTENANCE COSTS SUBTOTAL**							**$ 18,150**
3.0	**LEACHATE MANAGEMENT SYTEM OPERATION/MAINTENANCE/DISPOSAL**							
3.1	Leachate Management System Operation and Maintenance		0	LS	$ -	1.000	$ -	$ -
3.2	Leachate Disposal		0.0	AC	$ -	1.000	$ -	$ -
3.4	Additional Leachate Management Cost Items							$ -
3.5	**LEACHATE MANAGEMENT COSTS SUBTOTAL**							**$ -**
4.0	**SUM OF ENGINEERING, CONSTRUCTION, AND LEACHATE MANAGEMENT COSTS**							**$ 27,660**
5.0	**CONTINGENCY**			10%	of Item 4			**$ 2,766**
6.0	**THIRD PARTY ADMINISTRATION AND PROJECT MANAGEMENT**			2.5%	of Item 4			**$ 691**
7.0	**TOTAL POST-CLOSURE COST**							
7.1	**TOTAL ANNUAL POST-CLOSURE COST**							**$ 31,117**
7.2	**30 YEAR POST-CLOSURE COSTS**							**$ 933,512**

[1] N/A = not applicable, LS = lump sum, AC = acres, CY = cubic yards, SF = square feet, GAL = gallon, EA = Each

[2] Unit Costs are in 2024 dollars. Unit costs are based on current market conditions, typical engineering costs and industry standards related to construction, and reflect input from Republic Services and Weaver Consultants Group, LLC.

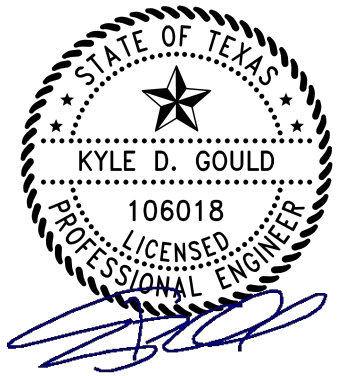
[3] Inflation factor is a product of the annual percentage change for each year as published by the TCEQ. Inflation factor will be used during future updating of CPC Cost Estimates





APPENDIX IIIL-A

CLOSURE COST ESTIMATE FORM FOR MUNICIPAL SOLID WASTE TYPE I LANDFILL (FORM 20721)



07/16/2025

Texas Commission on Environmental Quality

Closure Cost Estimate Form for Municipal Solid Waste Type I Landfills

This form is for use by applicants or site operators to provide cost estimates for closure of MSW Type I landfills to meet the requirements in 30 Texas Administrative Code (TAC) Chapter 330, Section 330.63(j) and 30 TAC Chapter 330 Subchapter L. The costs to be provided herein are cost estimates for hiring a third party to close the largest waste fill area that could potentially be open in the year to follow and those areas that have not received final cover. If you need assistance in completing this form, please contact the MSW Permits Section in the Waste Permits Division at (512) 239-2335.

Facility Name: City of Meadow Landfill

MSW Permit No.: 2293C

Site Operator/Permittee Name and Mailing Address: Meadow Landfill, LLC, 663 County Road 545, Meadow, TX 79345

Total Closure Cost Estimate (2024 Dollar Amount): $2,387,663

I. Professional Engineer's Statement, Seal, and Signature

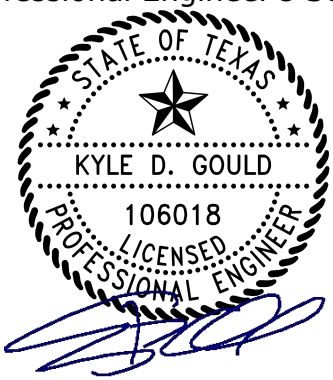
I am a licensed professional engineer in the State of Texas. To the best of my knowledge, this Closure Cost Estimate has been completed in substantial conformance with the facility Closure Plan and, in my professional opinion, is in compliance with Title 30 of the Texas Administrative Code, Chapter 330.

Name: Kyle D. Gould Title: Senior Engineer

Date: 7/2025

Company Name: Weaver Consultants Group, LLC Firm Registration Number: F-3727

Professional Engineer's Seal



07/16/2025

Professional Engineer's Signature

II. Annual Review of Permit Conditions, Cost Estimates, Inflation Factor, and Financial Assurance

The permittee/site operator acknowledges that he/she will:

(1) Review the facility's permit conditions on an annual basis and verify that the current active and inactive waste fill areas of the landfill match the areas on which closure cost estimates are based.

(2) Request in writing via a permit modification application for an increase in the closure cost estimate and the amount of financial assurance provided if changes to the closure plan or the landfill conditions increase the maximum cost of closure at any time during the remaining active life of the landfill.

(3) Request in writing via a permit modification application for a reduction in the cost estimate and the amount of financial assurance provided if the cost estimate exceeds the maximum cost of closure at any time during the remaining active life of the landfill. The permit modification application will include a description of the situation and a detailed justification for the reduction of the closure cost estimate and the amount of financial assurance.

(4) Establish financial assurance for closure of the unit in an amount no less than the current closure cost estimate in accordance with 30 TAC Chapter 37, Subchapter R.

(5) Adjust the current cost estimate for inflation within 60 days prior to the anniversary date of the first establishment of the financial assurance mechanism.

(6) Provide annual inflation adjustments to the closure costs and financial assurance during the active life of the facility, until the facility is officially placed under the post closure care period and all requirements of the final closure plan have been approved in writing by the TCEQ executive director. The adjustment will be made using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business, as specified in paragraphs (1) and (2) of 30 TAC §37.131. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(7) Provide continuous financial assurance coverage for closure until the facility is officially placed under the post-closure care period.

III. Description of the Closure Cost Estimates Worksheet

The following descriptions of the items on the closure cost estimates worksheet provide guidance for identifying the minimum work or cost elements and estimating the unit or lump sum cost of each item as applicable. Enter additional detail for each item in the field following the item as necessary and as site-specific condition warrants. The cost items are grouped under closure costs for engineering, construction, and storage and processing units. Include attachments to detail any additional work and associated costs necessary to close the site that is not already included as a line item on the worksheet. Reference the attachments and list the work or cost items in the fields under "Additional Engineering Cost Items Not Listed on the Worksheet," "Additional Construction Cost Items Not Listed on the Worksheet," or "Additional Storage and Processing Units Items Not Listed on the Worksheet" as applicable. Provide the total cost of the additional work or cost items in each cost category on the worksheet line that precedes the cost subtotal for each cost group.

1. Engineering Costs

The engineering tasks have been subdivided into seven items and are described below. Other related costs may be added as site-specific issues warrant.

1.1. Topographic Survey

A topographic survey will be required to verify the existing elevation and slopes of the landfill to ensure conformance with the final cover system, drainage system, and final grading designs.

Enter additional topographic survey work or cost element details as site-specific conditions warrant: **$5,180**

1.2. Boundary Survey

The metes and bounds description is required for filing of the affidavit of closure and deed recording of any area of the site which has received waste. Other activities to be included here are publication of the public notice of closing activities.

Enter additional boundary survey work or cost element details as site-specific conditions warrant: **$22,754**

1.3. Site Evaluation

The evaluation includes a site inspection to identify waste disposal areas, analyze drainage and erosion protection needs, and to determine other site operational features that are not in compliance with the permit. The site evaluation also includes verifying the need for new or relocation of existing groundwater monitoring wells and landfill gas monitoring probes, analysis of groundwater samples, and review of site operating record. The third party consultant who performed the site evaluation will prepare and submit an engineering report to the executive director to document the status of the site. The report will identify all areas of work and the associated implementation

costs necessary to safely close the landfill operations with recommendations on how to fulfill these needs.

Enter additional site evaluation work or cost element details as site-specific conditions warrant: **$246,795**

1.4. Development of Plans

The final closure, plan the final cover system design and specifications, grading and drainage plans, specification for revegetation, design of any other improvements to bring the site into compliance with the permit, the closure schedule, and coordination with the TCEQ and provision of closure notice to the public.

Enter additional development of plans work or cost element details as site-specific conditions warrant: **$27,739**

1.5. Contract Administration (bidding and award)

The third-party consultant will advertise the project, receive the bids, evaluate the bids, award the closure construction contract and administer the contract during construction.

Enter additional contract administration work or cost element details as site-specific conditions warrant: **$30,246**

1.6. Closure Inspection and Testing

The professional of record will observe closure construction, perform cover thickness and permeability verification, and prepare an evaluation report upon completion of closure.

Enter additional closure inspection or testing work or cost element details as site-specific conditions warrant: **$84,848**

1.7. TPDES and other Permits

The third-party consultant will prepare plans, specifications, and other documents necessary for compliance with applicable federal and state laws and requirements, including the Clean Water Act, for the proper closure of the site.

Enter additional TPES or other permits work or cost element details as site-specific conditions warrant: **$7,252**

1.8. Additional Engineering Cost Items Not Listed on the Worksheet

List the Attachment(s) detailing any additional engineering cost items necessary to close the site that is not already included as a line item on the worksheet:
Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional engineering cost items in the "Cost" column.

Groundwater Monitoring Well Consultant : NA

The existing groundwater monitoring system is adequate. There should be no cost associated with this item.

1.9. Engineering Costs Subtotal: $424,816

1.9.1. Enter the sum of engineering costs in Items 1.1 through 1.8.

2. Construction Costs

Closure construction costs include those for construction of the final cover system, site grading, and drainage improvements. Other costs may be added as site-specific issues warrant.

2.1. Mobilization

2.1.1. Mobilization of Personnel and Equipment

The cost of mobilizing personnel and construction heavy equipment must be included as part of the construction costs.

Enter additional work or cost element details for mobilization of personnel and equipment as site-specific conditions warrant:

5% of engineering costs = $21,241

2.2. Final Cover System

The owner or operator must install a final cover system that is designed to minimize infiltration and erosion. The final cover system is subdivided into the sideslope cover and cap cover with their associated components to facilitate cost calculations. If an alternative final cover is proposed, the closure cost estimate will still be based on a design that utilizes the conventional composite cover system.

Enter additional final cover system work or cost element details as site-specific conditions warrant: $842,083 – Includes Line Items 2.2.2a, 2.2.1g, and 2.2.1h.

2.2.1. Side Slope Cover

Not used – trench fill area no sideslope.

2.2.2. Top Slope Cover

No composite topslope at the site, trench fill areas only.

2.2.3. Cells for Class 1 Nonhazardous Industrial Waste

2.3. Site Grading

Site grading includes the final grading of the site, including the landfill cap and sideslopes.

Enter additional site grading work or cost element details as site-specific conditions warrant: $77,156

2.4. Site Fencing and Security

Site fencing and security must be included for the area which has received waste and have no existing approved fencing.

Enter additional site fencing and security work or cost element details as site-specific conditions warrant:

The site has adequate existing fencing.

2.5. Landfill Gas Monitoring and Control Systems

Enter information for Items 2.5.1 through 2.5.6.

Final installation of the landfill gas monitoring and control systems must include the installation costs of pipes and appurtenances. In the event of a forced closure, the systems may not have been completed, thus, the estimated costs to complete the landfill gas monitoring and control system must be provided.

Enter additional landfill gas monitoring and control systems work or cost element details as site-specific conditions warrant:

No landfill gas system is required.

2.6. Groundwater Monitoring System

2.6.1. Monitor Well Installation

Upon closure of the site, it may be necessary to relocate the compliance boundary. This requires the installation of new monitor wells.

Enter additional groundwater monitoring system work or cost element details as site-specific conditions warrant: **$720,000**

2.6.2. Piezometer and Monitor Well Plugging and Abandonment

Piezometer or monitor well abandonment is the cost of abandoning (plugging) piezometers or monitor wells that are no longer needed. Determine the number of piezometers or monitor wells to be abandoned and include the total cost.

Enter additional plugging and abandonment work or cost element details as site-specific conditions warrant:

No plugging of piezometers or monitoring wells is required.

2.7. Leachate Management

2.7.1. Completion of Existing Leachate Collection System

In the event of a forced closure, there may be circumstances where the leachate collection system has not been completed. In this event, the leachate collection system must be closed with a permanent outfalls and permanent cleanouts installed.

Enter additional leachate management work or cost element details as site-specific conditions warrant:

There is not an existing leachate system.

2.8. Stormwater Management

2.8.1. Stormwater Drainage Management System

To reduce the potential long-term impacts of the landfill on surface water quality, drainage features must be incorporated into the final cover design to direct runoff, minimize erosion, control sediments, and avoid ponding of stormwater. The drainage system construction costs must be included.

Enter additional stormwater drainage management work or cost element details as site-specific conditions warrant:

Included in overall cost of final cover system construction.

2.9. Additional Construction Cost Items Not Listed on Worksheet

List the Attachments detailing any additional construction cost items necessary to close the site that is not already included as a line item on the worksheet: Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional construction cost items in the "Cost" column.

2.10. Construction Costs Subtotal: $1,660,480

2.10.1. Enter the sum of construction costs in Items 2.1 through 2.9.

3. Storage and Processing Unit Closure Costs

For landfills that incorporate storage and/or processing operations that are not separately authorized, all waste and processed and unprocessed materials associated with storage and/or processing units must be removed during the closure process.

3.1. Waste Disposal

The cost of disposal of waste at an authorized facility. *Enter additional waste disposal work or cost element information as necessary.*

Not Applicable

3.2. Material Removal and Disinfection

The cost of removal, including transportation, of any remaining processed and unprocessed materials to an authorized off-site location. *Enter additional material removal and disinfection work or cost element information as necessary.*

Not Applicable

3.3. Demolition and Disposal

The cost of dismantling and/or disinfection of storage and/or processing units and disposal, as applicable. *Enter additional demolition and disposal work or cost element information as necessary.*

Not Applicable

3.4. Additional Storage and Processing Unit Closure Cost Items Not Listed in Worksheet

List the Attachments detailing any additional storage and processing unit closure cost items necessary to close the site that is not already included as a line item on the worksheet. Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional storage and processing unit closure cost items in the "Cost" column.

3.5. Storage and Processing Unit Closure Costs Subtotal: Not Applicable

4. Sum of Cost Subtotals: $2,085,296

4.1. Enter the sum of engineering, construction, and storage and processing unit closure cost subtotals from lines 1.9.1, 2.10.1, and 3.5.1.

5. Contingency: $208,530

5.1. Add an amount equal to at least 10 percent of the sum of cost subtotals to cover unanticipated events during implementation of closure activities.

6. Contract Performance Bond: $41,706

6.1. Add an amount equal to at least 2 percent of the sum of cost subtotals for purchase of a surety bond to guarantee satisfactory completion of the closure activities.

7. Third Party Administration and Project Management Costs: $52,132

7.1. Add an amount equal to at least 2.5 percent of the sum of cost subtotals to cover the cost for a third party hired by TCEQ to administer the closure activities.

8. Total Closure Cost: $2,387,663

8.1. Enter the sum of the amounts on lines 4.1, 5.1, 6.1, and 7.1.

IV. Closure Cost Estimates Worksheet

A. Landfill Data

Total Permitted Waste Disposal Area: 210.7 acres

Largest Area Requiring Final Cover in the year to follow: 45.0 acres

Total Filled Area with Constructed Final Cover: 0 acres

Total Area Certified Closed: 0 acres

Number of Monitor Wells to be Installed for Closure: 0

Number of Gas Probes to be Installed for Closure: 0

Total Acreage Needing LFG Collection and Control System: 0 acres

The unit or lump sum cost for each item is based on the work items and cost elements described in Section III of this Closure Cost Estimate document:

Yes ☒ No ☐ Partially ☐

(if "No" or "Partially" is checked, please include attachments describing the additional work items and detailing the unit, quantities, and costs for the additional items)

B. Facility Drawings and Financial Assurance Documentation

- Facility drawings
  - Attach facility drawings showing the closure areas to which the closure cost estimates apply.
- Financial assurance documentation
  - For an existing facility, attach a copy of the documentation required to demonstrate financial assurance as specified in 30 TAC Chapter 37, Subchapter R.
  - For a new facility, a copy of the required documentation shall be submitted 60 days prior to the initial receipt of waste.

C. Attachments

- Additional Engineering, Construction, and Storage and Processing Units Cost Items Details

D. Closure Cost Estimates Worksheet

If any item listed in this worksheet is not applicable to the subject facility, enter "NA" (Not Applicable) in the affected field.

Table 1. Closure Cost Estimates Worksheet.

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
1. Engineering Costs						
1.1	Topographic Survey	Lump Sum	1	$5,180	$5,180	Third Party Estimate
1.2	Boundary Survey	Acres	337.9	$67	$22,754	Third Party Estimate
1.3	Site Evaluation	Acres	337.9	$730	$246,795	Third Party Estimate
1.4	Development of Plans	Acres	45.0	$616	$27,739	Third Party Estimate
1.5	Contract Administration (bidding and award)	Percent	10%	NA	$30,246	Third Party Estimate
1.6	Closure Inspection and Testing	Acres	45.0	$1,886	$84,848	Third Party Estimate
1.7	TPDES and other Permits	Lump Sum	1	$7,252	$7,252	Third Party Estimate
1.8	Additional Engineering Cost Items (describe in attachments)	NA	NA	NA	NA	NA
1.9 Engineering Costs Subtotal						
1.9.1	Engineering Costs Subtotal	NA	NA	NA	424,816	NA
2. Construction Costs						
2.1 Mobilization						
2.1.1	Mobilization of Personnel and Equipment	Lump Sum	5%	424,816	21,241	NA
2.2 Final Cover System						
2.2.1 Side Slope Cover						
2.2.1a	Infiltration Layer – Compacted Clay	Cubic Yards	NA	NA	NA	Estimate from Recent Construction Experiences
2.2.1b	Infiltration Layer – Geosynthetic Clay Liner	Square Feet	NA	NA	NA	NA

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
2.2.1c	Flexible Membrane Cover – HDPE	Square Feet	NA	NA	NA	NA
2.2.1d	Flexible Membrane Cover – LLDPE	Square Feet	NA	NA	NA	NA
2.2.1e	Drainage Layer – Aggregate	Cubic Yards	NA	NA	NA	NA
2.2.1f	Drainage Layer – Drainage Geocomposite Material	Square Feet	NA	NA	NA	NA
2.2.1g	Erosion Layer	Cubic Yards	NA	NA	NA	NA
2.2.1h	Vegetation	Acres	NA	NA	NA	NA
2.2.2 Top Slope Cover						
2.2.2a	Infiltration Layer – Compacted Clay	Cubic Yards	108,900	$6.01	$654,489	Estimate from Recent Construction Experiences
2.2.2b	Infiltration Layer – Geosynthetic Clay Liner	Square Feet	NA	NA	NA	NA
2.2.2c	Flexible Membrane Cover – HDPE	Square Feet	NA	NA	NA	NA
2.2.2d	Flexible Membrane Cover – LLDPE	Square Feet	NA	NA	NA	NA
2.2.2e	Drainage Layer – Aggregate	Cubic Yards	NA	NA	NA	NA
2.2.2f	Drainage Layer – Drainage Geocomposite Material	Square Feet	NA	NA	NA	NA
2.2.2g	Erosion Layer	Cubic Yards	36,300	$3.89	$141,207	Estimate from Recent Construction Experiences
2.2.2h	Vegetation	Acres	45.0	$1,031	$46,387	Estimate from Recent Construction Experiences
2.2.3 Cells for Class 1 Nonhazardous Industrial Waste						
2.2.3a	Dike Construction	specify	NA	NA	NA	NA
2.3 Site Grading						
2.3.1	Site Grading	Acres	45.0	$1,715	$77,156	Estimate from Recent Construction Experiences

Closure Cost Estimate for MSW Type I Landfill

Facility Name: City of Meadow Landfill Revision No.: 2

Permit No: 2293C Date: 7/2025

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
2.4 Site Fencing and Security						
2.4.1	Site Fencing and Security	specify	NA	NA	NA	NA
2.5 Landfill Gas Monitoring and Control System						
2.5.1	Gas Control Wells	specify	NA	NA	NA	NA
2.5.2	Gas Header Piping	specify	NA	NA	NA	NA
2.5.3	Gas Lateral Piping	specify	NA	NA	NA	NA
2.5.4	Flare Station	Lump Sum	NA	NA	NA	NA
2.5.5	Condensate Sumps	specify	NA	NA	NA	NA
2.5.6	Completion of LFG Monitoring System	Wells	NA	NA	NA	NA
2.6 Groundwater Monitoring System						
2.6.1	Groundwater Monitoring Well Installation	Each	24	30,000	$720,000	Estimate from Recent Construction Experiences
2.6.2	Piezometer and Monitor Well Plugging and Abandonment	Each	NA	NA	NA	NA
2.7 Leachate Management						
2.7.1	Completion of Leachate Management System	specify	NA	NA	NA	NA
2.8 Stormwater Management						
2.8.1	Stormwater Drainage Management System	specify	NA	NA	NA	NA
2.9 Other Cost Items						
2.9.1	Additional Construction Cost Items (describe in attachments)	LS	1	NA	NA	Estimate from Recent Construction Experiences
2.10 Construction Costs Subtotal						
2.10.1	Construction Costs Subtotal	NA	NA	NA	$1,660,480	NA
3. Storage and Processing Unit Closure Costs						
3.1	Waste Disposal	☐ Tons ☐ Cubic Yards	NA	NA	NA	NA
3.2	Material Removal and Disinfection	specify	NA	NA	NA	NA

Closure Cost Estimate for MSW Type I Landfill

Facility Name: City of Meadow Landfill Revision No.: 2

Permit No: 2293C Date: 7/2025

Item No.	Item Description	Units[1]	Quantity	Unit Cost	Cost	Source of Unit Cost Estimate[2]
3.3	Demolition and Disposal Units	specify	NA	NA	NA	NA
3.4	Additional Storage and Processing Unit Closure Cost Items (describe in attachments)	identify attach-ments	NA	NA	NA	NA
3.5 Storage and Processing Unit Closure Costs Subtotal						
3.5.1	Storage and Processing Unit Closure Costs Subtotal	NA	NA	NA	NA	NA
4. Sum of Engineering, Construction, and Storage and Processing Unit Closure Costs						
4.1	Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals	NA	NA	NA	$2,085,296	NA
5. Contingency						
5.1	Contingency (10% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	$208,530	NA
6. Contract Performance Bond						
6.1	Contract Performance Bond (2% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	$41,706	NA
7. Third Party Administration and Project Management Costs						
7.1	Third Party Administration and Project Management Costs (2.5% of Sum of Engineering, Construction, and Storage and Processing Unit Closure Cost Subtotals)	NA	NA	NA	$52,132	NA
8. Total Closure Costs						
8.1	Total Closure Costs (sum of amounts in Sections 4, 5, 6, and 7)	NA	NA	NA	$2,387,663	NA

[1] For items marked "specify," the responsible professional engineer will enter appropriate unit of measurement

[2] Sources of Unit Costs for Cost Estimates table may include:

(1) Published Cost Estimator Manuals (e.g., RS Means);

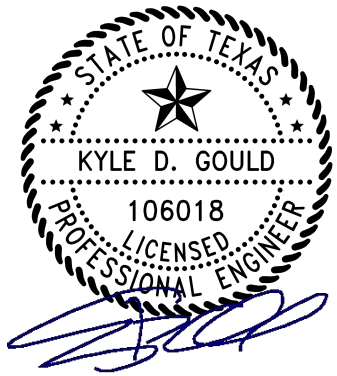
(2) Third Party Quotes (e.g., Environmental Field Services Contractors);

(3) Verifiable Data based on Actual Operations; or

(4) Other sources of cost acceptable to the executive director of the TCEQ.

APPENDIX IIIL-B

POST-CLOSURE COST ESTIMATE FORM FOR MUNICIPAL SOLID WASTE TYPE I LANDFILL (FORM 20723)



07/16/2025

Texas Commission on Environmental Quality

Post-Closure Care Cost Estimate Form for Municipal Solid Waste Type I Landfills

This form is for use by applicants or site operators to provide post-closure care cost estimates for post-closure care of MSW Type I landfills to meet the requirements in 30 Texas Administrative Code (TAC) Chapter 330, Section 330.63(j) and 30 TAC Chapter 330 Subchapter L. The costs to be provided herein are cost estimates for hiring a third party to conduct post-closure care of the largest waste fill area that has been certified closed in writing by the TCEQ executive director.

If you need assistance in completing this form, please contact the MSW Permits Section in the Waste Permits Division at (512) 239-2335.

I. General Information

Facility Name: City of Meadow Landfill

MSW Permit No.: 2293C

Date: 7/2025

Revision Number: 2

Site Operator/Permittee Name and Mailing Address: Meadow Landfill, LLC, 663 County Road 545, Meadow, TX 79345

Total Post-Closure Care Cost Estimate (2024 Dollar Amount): $933,512

II. Professional Engineer's Statement, Seal, and Signature

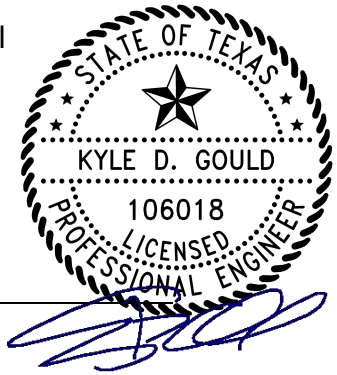
I am a licensed professional engineer in the State of Texas. To the best of my knowledge, this Post- Closure Care Cost Estimate has been completed in substantial conformance with the facility Post-Closure Care Plan and, in my professional opinion, is in compliance with Title 30 of the Texas Administrative Code, Chapter 330.

Name: Kyle D. Gould Title: Senior Engineer

Date: 7/2025

Company Name: Weaver Consultants Group, LLC Firm Registration Number: F-3727

Professional Engineer's Seal



Signature

07/16/2025

III. Annual Review of Permit Conditions, Cost Estimates, Adjustments for Inflation, and Financial Assurance

The site operator/permittee acknowledges that he/she will:

1. Revise and increase the post-closure care cost estimate and the amount of financial assurance provided whenever changes in the post-closure care plan or the landfill conditions increase the maximum cost of post-closure care at any time during the remaining active life of the landfill and until the facility is officially released from the post-closure care period in writing by the executive director.
2. Request a reduction in the post-closure care cost estimate and the amount of financial assurance as a permit modification whenever the post-closure care cost estimate exceeds the maximum cost of post-closure care remaining over the post-closure period. The permit modification will include a detailed justification for the reduction of the post-closure care cost estimate and the amount of financial assurance.
3. Establish financial assurance for post-closure care of the unit in an amount no less than the current post-closure care cost estimate in accordance with 30 TAC Chapter 37
4. Adjust the current post-closure care cost estimate for inflation within 60 days prior to the anniversary date of the first establishment of the financial assurance mechanism.
5. Provide annual inflation adjustments to the post-closure care costs and financial assurance during the active life of the facility and during the post closure care period. The adjustment will be made using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product published by the United States Department of Commerce in its Survey of Current Business, as specified in 30 TAC Chapter 37. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.
6. Provide continuous financial assurance coverage for post-closure care until the facility is officially released in writing by the executive director from the post-closure care period in accordance with all requirements of the post-closure care plan.

IV. Description of Worksheet Items of the Post-Closure Care Cost Estimates

The following descriptions of the worksheet items provide guidance for identifying the minimum work or cost elements for estimating the unit or lump sum cost of each item as applicable. Enter additional detail for each item in the field following the item as necessary and as site-specific conditions warrant. The cost items are grouped under post-closure care costs for engineering, construction, and leachate management. Include attachments to detail any additional work and associated costs necessary for the post-closure care of the unit or facility that is not already included as a line item on the worksheet. Reference the attachments and list the work or cost items in the fields under "Additional Engineering Cost Items Not Listed on the Worksheet," "Additional Construction Cost Items Not Listed on the Worksheet," or Additional Leachate Management Costs Not Listed on the Worksheet" as applicable. Provide the total cost of additional work or cost items in each cost category on the worksheet line that precedes the cost subtotal for each cost group.

1. Engineering Costs

1.1. Site Inspection and Recordkeeping

Regularly scheduled and event-driven site inspection must be performed to identify areas experiencing settlement, subsidence, erosion, or other drainage related problems, and note the conditions of the environmental control and monitoring systems, including leachate collection, groundwater monitoring, and landfill gas monitoring systems*. Enter additional site inspection and recordkeeping work or cost element detail as site-specific conditions warrant.*

$3,379

Site inspections will identify any potential areas experiencing settlement and erosion over the entire area to be administratively closed. The inspection will also document the condition of the LCS, LFG, groundwater monitoring system, and other landfill systems.

1.2. Correctional Plans and Specifications

The cost for an engineering consultant to prepare corrective measure construction plans and specifications to correct problems identified during site inspections. *Enter additional work or cost element details for correctional plans and specifications as site-specific conditions warrant.*

$4,731

Includes preparation of plans and specifications to correct problems identified during inspections in area of waste in-place.

1.3. Site Monitoring

The cost of performing semiannual groundwater (including costs for sampling and analyzing parameters, and assessment and reporting) and quarterly landfill gas monitoring (including costs for sampling and reporting) and the monitoring of other site-specific systems at the landfill during the post-

closure period. *Enter additional site monitoring work or cost element details as site-specific conditions warrant.*

$1,400

After development of the footprint under Permit No. MSW-2293C then, this will also include the cost for semi-annual groundwater monitoring.

1.4. Additional Engineering Cost Items Not Listed on the Worksheet

List the Attachments detailing additional post-closure care engineering cost items not already included as a line item on the worksheet. (Also, reference these Attachments in the "Units" column of this line of the worksheet. Provide the total cost of all additional engineering cost items in the "Cost" column).

NA

2. Construction Costs

2.1. Cap and Sideslopes Repairs and Revegetation

The cost of repair of the cap and cap drainage control structures due to erosion or structural integrity failures and maintaining final cover vegetation to minimize erosion. *Enter additional cap and sideslopes repair and revegetation work or cost element details as site-specific conditions warrant.*

$9,450

2.2. Mowing and Vegetation Control

The cost of controlling vegetation growth on the final cover and other areas of the landfill. *Enter additional mowing and vegetation control work or cost element details as site-specific conditions warrant.*

$5,500

2.3. Groundwater Monitoring System Maintenance

The cost of repairs/replacement and routine maintenance. *Enter additional groundwater monitoring system maintenance work or cost element details as site-specific conditions warrant.*

N/A no groundwater monitoring system.

2.4. LFG Monitoring Probes Maintenance

The cost of repairs/replacement and routine maintenance. Enter additional LFG monitoring probes maintenance work or cost element details as site-specific conditions warrant.

LFG O&M is not applicable until sufficient footprint is developed.

2.5. LFG Collection System Maintenance

The cost of repairs and routine maintenance. *Enter additional LFG collection system maintenance work or cost element details as site-specific conditions warrant.*

After a sufficient footprint has been developed under the Permit No. MSW-2293C requiring an LFG Collection System then, the chart for LFG O&M (provided on Table 2) will be applicable.

2.6. Perimeter Fence and Gates Maintenance

The cost of maintaining perimeter fence and gates to restrict unauthorized access to the closed landfill. *Enter additional perimeter fence and gates maintenance work or cost element details as site-specific conditions warrant.*

$1,200

2.7. Access and Rights of Way Maintenance

The cost of maintaining the access roads and other rights of way to the closed landfill to conduct inspections, environmental sampling, routing maintenance and other post-closure activities. *Enter additional access and rights of way maintenance work or cost element details as site-specific conditions warrant.*

$2,000

2.8. Drainage System Cleanout and Repairs

The cost to include costs for maintaining and repairing ditches, conveyance structures, and ponds/basins. *Enter additional drainage system cleanout and repairs work or cost element details as site-specific conditions warrant.*

Included in Item 2.0 on Table 2.

2.9. Additional Construction and Maintenance Cost Items Not Listed on the Worksheet

List the Attachments detailing any additional construction and maintenance cost items necessary for post-closure care that are not already covered on the worksheet. (Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional construction and maintenance cost items in the "Cost" column.)

NA

3. Leachate Management Costs

3.1. Leachate Collection and Removal System Operation and Maintenance

The cost of operation, routine maintenance and repairs. *Enter additional work or cost element details for leachate collection and removal system operation and maintenance as site-specific conditions warrant.*

NA

3.2. Leachate Disposal

The cost of leachate disposal off-site. *Enter additional work or cost element details for leachate disposal as site-specific conditions warrant*.

NA

3.3. Additional leachate management cost items not listed on the worksheet.

List the Attachments detailing any additional leachate management cost items necessary for post-closure care that are not already covered on the worksheet. (Also, reference these Attachments in the "Units" column on this line of the worksheet. Provide the total cost of all additional leachate management cost items in the "Cost" column.)

NA

4. Sum of Cost Subtotals

Enter the sum of engineering, construction, and storage and leachate management post-closure care cost subtotals from lines 1.5.1, 2.10.1, and 3.5.1.

$829,800

5. Contingency

The cost added to cover unanticipated events during implementation of post-closure activities. (Enter additional work or cost element information as necessary)

$2,766

6. Third Party Administration and Project Management Costs

The cost for the third party hired by TCEQ to administer the post-closure activities. (Enter additional work or cost element information as necessary)

$691

V. Post-Closure Care Cost Estimates Worksheet

Post-Closure Care Period – 30 years

Total Permitted Acreage: 337.9 acres

Total Permitted Waste Footprint: 210.7 acres

Number of Groundwater Monitoring Wells: 0

Number of GW Monitoring Events: 2/year

Number of Gas Probes: 2

Number of LFG Monitoring Events: 4/year

The unit or lump sum cost for each item is based on the work items and cost elements described in Section III of this Post-Closure Cost Estimate document:

Yes ☒ No ☐ Partially ☐

If "No" or "Partially" is checked, please attach a written description of work items and cost elements which form the bases of unit or lump sum cost for the affected items.

(NOTE: If any item listed in this worksheet is not applicable to the subject facility, enter Not Applicable (N/A) in the affected fields)

Attachments

Additional Engineering, Construction, and Leachate Management Cost Items Details.

Table 1: Post-Closure Care Cost Estimates

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
1.0 Engineering Costs						
1.1	Site Inspection and Recordkeeping[ii]	Acre	337.9	$10.00	$3,379	WCG routinely provides this type of service.
1.2	Correctional Plans and Specifications	Acre	337.9	$14.00	$4,731	WCG routinely provides this type of service.
1.3 Site Monitoring						
1.3.1 Groundwater Monitoring System						
1.3.1(a)	Sampling and Analysis of GW Monitoring Wells (Quantity = 2 x Number of wells)	Wells	NA	NA	NA	WCG routinely provides this type of service.
1.3.1(b)	Piezometers/Well Abandonment	Each	NA	NA	NA	NA
1.3.2 LFG Monitoring System						
1.3.2(a)	LFG Quarterly Monitoring (Quarterly)	Events/ Year	4	$350	$1,400	WCG routinely provides this type of service.
1.3.2(b)	LFG Probe Plugging and Abandonment	Each	NA	NA	NA	NA
1.4 Additional Engineering Cost Items (Detail in Attachments)						
1.4.1	Additional Engineering Cost Items (describe in attachments)	Identify attachments	NA	NA	NA	NA
1.5 Engineering Costs Subtotal						

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
1.5.1	Engineering Costs Subtotal	NA	NA	NA	$9,510	NA
2.0 Construction and Maintenance Costs						
2.1	Cap and Sideslopes Repairs and Revegetation	LS	45	$210	$9,450	Ongoing postclosure maintenance projects.
2.2	Mowing and Vegetation Management	LS	1	$5,500	$5,500	Ongoing postclosure maintenance projects.
2.3	Groundwater Monitoring System Maintenance	specify	Included in monitoring.			
2.4	LFG Monitoring Probes Maintenance	specify	Included in monitoring.			
2.5	LFG Collection System Maintenance	specify	0	NA	NA	NA
2.6	Perimeter Fence and Gates Maintenance	LS	1	$1,200	$1,200	Ongoing postclosure maintenance projects.
2.7	Access Roads Maintenance	LS	1	$2,000	$2,000	Ongoing postclosure maintenance projects.
2.8	Drainage System Cleanout/Repairs	specify	NA	NA	NA	NA
2.9 Additional Construction and Maintenance Cost Items (Details in Attachments)						
2.9.1	Additional Construction and Maintenance Cost Items (details in attachments)	Identify attachments	NA	NA	NA	NA

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
2.10 Construction and Maintenance Costs Subtotal						
2.10.1	Construction and Maintenance Costs Subtotal	NA	NA	NA	$18,150	NA
3.0 Leachate Management						
3.1	Leachate Management System Operation and Maintenance	specify	NA	NA	NA	NA
3.2	Leachate Disposal	Gals	NA	NA	NA	Estimate from Recent Construction Experiences
3.3 Additional Leachate Management Cost Items (Details in Attachments)						
3.4	Additional Leachate Management Cost Items (details in attachments)	LS	NA	NA	NA	NA
3.5 Leachate Management Costs Subtotal						
3.5.1	Leachate Management Costs Subtotal	NA	NA	NA	0	NA
4.0 Sum of Engineering, Construction, and Leachate Management Costs						
4.1	Sum of Engineering, Construction, and Leachate Management Cost Subtotals	NA	NA	NA	$27,660	NA
5.0 Contingency						
5.1	Contingency (10% of Sum of Engineering, Construction, and Leachate Management Cost Subtotals)	NA	NA	NA	$2,766	NA

Item No.	Item Description	Units	Annual Qty.	Unit Cost	Annual Cost	Source of Unit Cost Estimate[i]
6.0 Third Party Administration and Project Management Costs						
6.1	Third Party Administration and Project Management Costs (2.5% of Sum of Engineering, Construction, and Leachate Management Cost Subtotals)	NA	NA	NA	$691	NA
7. Total Post-Closure Cost						
7.1	Total Annual Post-Closure Cost (Sum of amounts in Sections 4, 5, and 6)	NA	NA	NA	$31,117	NA
7.2	30 Year Post-Closure Costs (Total Annual Post-Closure Cost x 30)	NA	NA	NA	$933,512	NA

[i] Sources of Unit Cost Estimates may include:
(1) Published Cost Estimator Manuals (e.g., RS Means);
(2) Third Party Quotes (e.g., Environmental Field Services Contractors); or
(3) Verifiable Data based on Actual Operations

[ii] Example Description for Item No. 1.1 – "Includes costs for site inspection performed at least annually for identification of areas experiencing settlement or subsidence, erosion or other drainage-related problems, inspection of the leachate collection system, gas monitoring system and LFG monitoring system."

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

PART IV – SITE OPERATING PLAN

Prepared for

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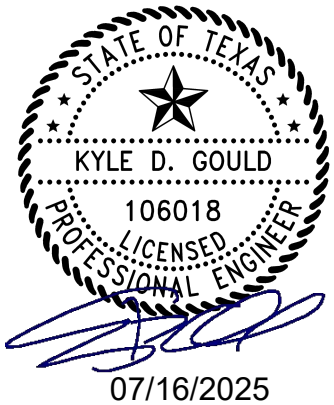
August 2024
Revised February 2025

Revised July 2025



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WCG Project No. 0120-809-11-06

This document is intended for permitting purposes only.

reducing traffic at the MSW working face. The Citizens Convenience Center is located over an impervious area. Citizens will be directed to the Convenience Center by site personnel at the entrance facility. Signs will be posted to assist citizens traveling to the Convenience Center. Waste material is offloaded from the small-vehicles to roll-off containers. The size of the roll-off containers will range between 20 and 40 cubic yards. The site then hauls the roll-off containers periodically to the MSW working face for disposal. The Citizens Convenience Center will not accept sharps. The maximum amount of waste stored at the Convenience Center is 200 cubic yards. The roll-off containers will be emptied at least at the end of each day the site is open or more frequently if needed. Storage for recycling may also occur at the Citizens Convenience Center including electronics, whole tires, and white goods and other non-putrescible recyclables. Recyclable materials will be placed on the ground, palletized, or in containers or bins at the Citizens Convenience Center as not to impede citizen traffic accessing the rolloff containers used for waste disposal. If recyclables are received at the landfill (in segregated containers or bins) these materials may be stored within the Citizens Convenience Center area prior to off-site shipping for recycling. Individual areas for recyclable materials storage are not designated in the Citizens Convenience Center plans, although all storage of recyclables will be confined to the area designated as the Citizens Convenience Center on Drawing I/IIA.9. Recyclables will be periodically removed from the site by recycling vendors or transported off-site for recycling. Recyclables staged at the Citizens Convenience Center are not subject to daily removal but instead will be removed as accumulated quantities (so as not to impede Citizens Convenience Center operations) dictate.

- Liquid Waste Bulking Facility. The liquid waste bulking facility area will accept liquid wastes as outlined in Appendix IVD. Operation of the Liquid Waste Bulking Facility is described in Appendix IVD.

4.2.2 Waste Excluded from Disposal at the Site

The following wastes are specifically excluded from disposal at the site:

- Liquid wastes that do not pass the paint filter test, except as allowed under Section 4.20.1 of this SOP
- Waste classified as hazardous by the TCEQ (refer to Section 6 for more information)
- Grease trap wastes, except as allowed under Section 4.20.1 of this SOP
- Waste prohibited by the TCEQ (see 30 TAC §330.15(e)) and unauthorized wastes (prohibited waste and unauthorized waste are used interchangeably)

4.2.3 Waste Unloading Procedures

Scale Operators, Equipment Operators, Laborers, and Spotters will monitor the incoming waste. The combined efforts of the trained landfill staff will assure that each

load of waste disposed at the landfill is inspected per Title 30 TAC §330.127(5)(A). Scale Operators control site access and monitor incoming vehicles for unauthorized or prohibited wastes by (1) receiving manifests and other shipping documents, (2) recording incoming waste loads, and (3) interviewing the driver, if necessary. Any nonconforming issues will be reported to the Operations Manager or his designee. If the non-conforming issues involve Special or Industrial wastes, the Operations Manager or his designee will review Sections 4.20 and 6.2 of the SOP to verify that all requirements for acceptance of Special and Industrial waste have been met before the material is accepted for disposal. The procedures for handling prohibited waste that is not discovered until after it is unloaded are discussed in Section 6.2.

Equipment Operators, Spotters, Laborers, or other field personnel will be present at all areas where waste is being unloaded to monitor unloading of waste. These personnel will be familiar with the rules and regulations governing the various types of waste that can or cannot be accepted into this facility and will be trained to

and implement measures to further minimize mud tracking onto public access roads, when necessary (e.g., temporary wheel washing procedures). Further, tracked mud and associated debris at the access to the facility on public roadways must be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway.

The landfill haul and access roads will be maintained in a reasonable dust-free condition by periodic spraying from a water truck. During dry weather conditions, the Operations Manager or his designee will routinely inspect the site and establish a frequency, if necessary, to spray the landfill access roads with water to prevent nuisance conditions from developing. Litter and other debris along the landfill access roads will be removed, consistent with the schedule requirements listed in Section 4.23 of this SOP (i.e., litter or other debris will be picked up on a daily basis). Grading equipment will be used when necessary to control or remove mud accumulations on roads as well as minimize depressions, ruts, and potholes. In addition, all on-site and other access roadways will be maintained on a regular basis. Mud and assorted debris tracked onto public roadways will be removed at least once per day on days when mud and associated debris are being tracked onto public roadways to the extent that mud can be reasonably considered to be associated with landfill operations. Landfill haul and access roads will be regraded as necessary or at a minimum once per year. Refer to Section 4.23 of this SOP for site inspection and maintenance list (this list also includes documentation requirements which are also explained in Section 9).

4.13 Salvaging and Scavenging

Salvaging is the controlled removal of waste materials for utilization, recycling, or sale. Salvaging must not be allowed to interfere with prompt sanitary disposal of solid waste or to create public health nuisances. Salvaged materials shall be removed from the facility often enough to prevent the items from becoming a nuisance, to preclude the discharge of any pollutants from the area, and to prevent an excessive accumulation of the material at the facility. Special waste received at the disposal facility not be salvaged.

Scavenging is the uncontrolled and unauthorized removal of materials at any point in the solid waste management system. Scavenging will be prohibited at all times.

4.14 Endangered Species

Information regarding endangered species is located in Parts I/II, Section 12, in accordance with §330.61(n) and §330.551. No suitable habitat exists on the site for any species listed for Terry County, nor has critical habitat been designated in the project area for any threatened or endangered species. Neither the facility nor its operation will result in the destruction or adverse modification of the critical habitat of endangered or threatened species or cause or contribute to the taking of endangered or threatened

Therefore, if an abandoned oil, gas, or water well is located, the Operations Manager will provide written notification to the TCEQ's Executive Director of their location within 30 days after discovery during the course of facility development. If any wells are encountered, they will be exposed, the casing cut to a minimum of 2 feet below the excavation, and the well capped and plugged in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable state agency.

The Operations Manager or his designee will provide written notification to the Executive Director of the location of any and all existing or abandoned water wells within the facility upon discovery during site development. Within 30 days of such a discovery, the Operations Manager or his designee will provide written notification and certification to the Executive Director of the TCEQ that all such wells have been capped, plugged, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency. If a water well is proposed in the future, a permit modification will be submitted to the TCEQ to meet the requirements of §330.161. Water wells that will be used to supply the facility may remain in use provided they are not affected by landfill operations.

The Operations Manager or his designee will provide written notification to the Executive Director of the location of any and all existing or abandoned crude oil or natural gas wells, or other wells associated with mineral recovery that are under the jurisdiction of the Railroad Commission of Texas within the facility upon discovery during site development. Within 30 days after the plugging of any such well, the Operations Manager will provide the Executive Director of the TCEQ with written certification that all such wells have been properly capped, plugged, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas.

A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged. Plugging reports for former onsite oil and gas wells are provided in Part III, Appendix IIIG-A.

In the event that an abandoned well causes a change to the liner installation plan, a permit modification will be submitted to the Executive Director in accordance with §330.131(d).

4.17 Compaction of Solid Waste

Compaction of incoming waste facilitates efficient use of available space, minimizes settlement and consolidation, and promotes proper application of daily, intermediate, and final cover. Landfill compactor(s) or similar equipment will be used to compact waste at City of Meadow Landfill. Unless otherwise documented in the Site Operating Record, the Operations Manager or his designee will instruct the Equipment Operators to spread waste in lifts that are approximately two feet thick. The compactor will typically make two to four passes to compact the waste. A pass is defined as one direction of travel. The Equipment Operators will be trained to determine whether the compaction equipment is functioning as designed to ensure

- The random selection procedure shall ensure that waste hauling vehicles are selected at varying times during the appropriate days of each week.
- The random selection procedure shall apply to all non-excluded waste hauling vehicles that transport waste to the site.

If inclement weather or other conditions preclude the random inspection from being performed on the scheduled day, the delayed random inspection shall be performed at the same scheduled time on the next day that the site is operating. Thus, if a scheduled random inspection is delayed, there will be two random inspections performed the next operating day.

The loads which are excluded from random inspections are listed below:

- Waste from transfer stations (meeting the criteria stated below)
- Liquid wastes
- Asbestos wastes
- Loads which have been verified through generator profiling that regulated hazardous wastes or PCB wastes are excluded

The facility may accept waste from transfer stations. Wastes received from transfer stations will not be screened at the site if the transfer station is permitted or registered by the TCEQ and random screening procedures are conducted at the transfer station. Copies of the transfer station TCEQ permit or registration number, and a letter from the transfer station owner or operator certifying that random waste screening is conducted at the transfer station, will be included in the documentation for transfer station loads excluded from random inspection procedures. Transfer station loads not meeting these criteria and vehicles containing special waste will be subject to random inspections.

Spreading of the waste for inspection may be accomplished by using mechanized equipment or hand implements. Inspectors shall observe the waste materials as the waste discharged from the truck is spread and separated. The waste shall be sufficiently spread to determine its character and composition. Inspectors shall wear appropriate personal protective equipment during the inspection which includes, at a minimum, the following:

1. Gloves;
2. Work boots;
3. Clothing which minimizes contact of waste;
4. High visibility clothing; and
5. Hardhat.

7.7.2 Working Face Fire Fighting Plan

If a fire is detected within material at the working face, the spotter (or Equipment Operator) will first redirect incoming loads away from the affected area. Working face fires will be extinguished by one of the following techniques. This section provides alternative fire fighting methods as allowed by §330.129.

- If the area of burning waste is small (e.g., an area of 10 feet by 10 feet or less), and is a surface fire, it will be extinguished using a fire extinguisher located on the equipment at the working face. Additional measures will be used, if necessary, to fully extinguish the fire. After the fire is extinguished, the affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or his designee.
- For an approximate burning waste area of 30 feet by 30 feet the burning waste material will be removed (i.e., "cut out" of the working face by a dozer or similar equipment) from the working face to an area where it can be covered with 6 inches of soil. The water truck may also be used to extinguish the burning waste. The working face area in which the burning waste was removed will be covered with 6-inces of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan.
- For an approximate burning waste area of 50 feet by 50 feet the burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed at the facility. The working face area which contained the burning waste will be covered with 6 inches of soil to smother the fire. Upon extinguishing a fire at the working face through smothering with soil, that portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or his designee. Water that is used to fight the fire will be contained by the contaminated water containment berm. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan.
- For areas larger than 50 feet by 50 feet, the burning waste material within the working face will be sprayed with water from one of the water trucks (or tanks) stationed at the facility. Then the burned (or burning) waste material will be removed from the working face to an area where it can be covered with 6 inches of soil. The working face area in which the burning waste was removed will be covered with 6-inces of soil. The affected portion of the working face will remain closed while the area is inspected to verify the fire is completely extinguished. Inspection of the fire area will be conducted by the Operations Manager or

his designee. Contaminated water will be managed as specified in the Leachate and Contaminated Water Management Plan.

In each case listed above, after the Operations Manager or his designee confirms that the fire has been extinguished, waste filling operations in that area may resume. In the event that the fire cannot be controlled using the methods above, the local fire department will be called at 911 (refer to Section 7.11 for additional information regarding contacting the fire department).

7.7.3 Water Trucks or Storage Tank Requirements

A water source (either a water truck(s) or storage tank(s)) equipped with a water cannon will be maintained in a readily accessible location to assist the fighting of any potential working face fire. The water truck or storage tank may be used in the support of other landfill activities (e.g., dust suppression, compaction of earth fills).

Maximum Working Face Size (width by length)	No. of Water Trucks or Tanks[1] (minimum capacity of 2,000 gallons)
30 feet by 30 feet (or 900 sf)[2]	N/A[2]
150 feet by 175 feet (or 26,250 sf)	1 (or 2,000 gallons)
250 feet by 325 feet (or 81,250 sf)	1 (or 2,000 gallons)
375 feet by 450 feet (or 168,750 sf)	2 (or 4,000 gallons)
525 feet by 600 feet (or 315,000 sf)	3 (or 6,000 gallons)

[1] The tank or truck size will be based on the required volume. For example, a water truck that has a 4,000-gallon tank is acceptable for a working face size of 375 by 450 feet.

[2] When the facility accepts less than 40 tons per day, the maximum working face area will be 30 feet by 30 feet (900 square feet) and a stockpile of earthen material adequately sized to cover the working face with 6 inches of soil (17 cubic yards) will be maintained immediately adjacent to the working face.

The on-site stormwater detention ponds may also be used as a source of water for fire control. A minimum of 2,000 gallons of water will be available for firefighting purposes. Also, during periods of freezing temperatures measures will be taken to ensure that the tank(s) remain operational. Additionally, Republic may contract with the City of Meadow for water obtained from the fire hydrant system installed and operated within the city or installed at the site (future); obtain water from an adjacent landowner existing well; or install a dedicated potable or non-potable well in the future for operational water.

7.7.4 Soil Stockpile Requirements

This section provides alternative fire fighting methods as allowed by §330.129. A soil stockpile will be maintained within 1,000 feet of each working face. The stockpile will be used to (1) smother burning waste material at the working face or (2) placed over burning waste material that has been cut out of the working face. The stockpile will be sized to cover at least 25 percent of the size of each working face. In addition, enough earthen material (i.e., soil stockpiles and soil within borrow areas) will be maintained on-site to cover the entire working face within 24 hours. The earthen material requirements are listed in the following table.

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS
TCEQ PERMIT NO. MSW-2293C

MAJOR PERMIT AMENDMENT APPLICATION

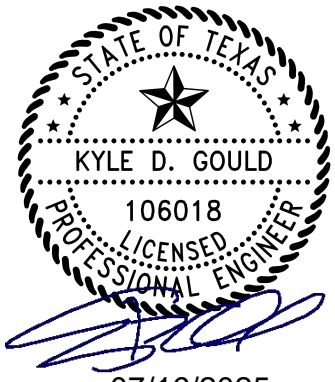
PART IV – SITE OPERATING PLAN
APPENDIX IVC
SPECIAL WASTE ACCEPTANCE PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



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WCG Project No. 0120-809-11-06

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hazardous waste from small quantity generators that are conditionally exempt, sludge, grease/grit trap waste and liquid wastes from municipal sources that are properly processed, and used oil filters from household generators that are properly crushed or otherwise processed to remove all free-flowing used oil do not require waste-specific and/or site-specific written approval from the TCEQ's Executive Director prior to acceptance and disposal as noted in the regulations. Similarly, soils contaminated by petroleum products, crude oils, or other chemicals may be accepted and disposed of, subject to limitations set forth in Title 30 TAC §330.171 (relating to Disposal of Wastes), and certain industrial solid wastes, such as Class 2 or Class 3 industrial solid wastes that do not interfere with facility operations, may be accepted and disposed of without a waste-specific and/or site-specific written approval from the Executive Director, subject to limitations set forth in Title 30 TAC §330.173 (relating to Disposal of Industrial Wastes). Petroleum-contaminated soils exceeding the limits set forth in Title 30 TAC §330.171(b)(4) will not be accepted for disposal at the landfill.

The special wastes enumerated in Title 30 TAC §330.171(c) and (d) and §330.173(c) and (i) – (j) (generally referenced above) will be accepted for disposal at the City of Meadow Landfill by operation of rule (with the exception of regulated asbestos containing material), without the necessity for any waste-specific or site-specific approvals. They will be managed at the facility in accordance with the methods set forth in those rules and any applicable requirements set forth in the Site Operating Plan (SOP), as further detailed in Section 6 of this SWAP.

Title 30 TAC §330.171(b)(1) provides that approvals for any other (non-enumerated) wastes must be waste-specific and/or site-specific in nature (i.e., not authorized by operation of rule); however, Title 30 TAC §330.171(b)(2) allows a generator to request approval to dispose of special waste directly from a landfill operator who has an approved Special Waste Acceptance Plan under Title 30 TAC §330.61(b) that authorizes the acceptance of such waste on a site-specific basis. This SWAP addresses requirements of the TCEQ rules allowing site-specific authorization to accept special waste meeting the facility's waste acceptance criteria set forth in Section 3 – Evaluation Guidelines of this SWAP. Unless otherwise approved by the Executive Director, only those non-enumerated special wastes that meet the waste acceptance criteria of this SWAP will be disposed of at the City of Meadow Landfill in accordance with the disposal requirements set forth in the SOP and further detailed in Section 6 of this SWAP.

In accordance with Title 30 TAC §330.171(b)(6) the executive director may revoke the authorization to accept special waste if the owner or operator does not maintain compliance with the rules or conditions imposed by this Special Waste Management Plan to accept special waste.

of the waste type, origin, shipping method, and anticipated volume and frequency of disposal. This information will he used by the Special Waste Coordinator/Analyst to compare the waste with the appropriate State and Federal regulations. If the description is not explicit, additional information will be requested of the generator.

- The "Physical Characteristics of Waste" must include information on the chemical and physical properties of the waste sufficient to allow the Special Waste Coordinator/Analyst to confirm the generator's waste characterization and correlate the waste properties to the appropriate State and Federal regulations. It is important that all portions of this section of the SWP Sheet be completed by the generator of the waste, and that the generator executes the certification statement in the subsequent section on the SWP Sheet.

- Site Specific Evaluation – The Special Waste Coordinator/Analyst will confirm that each site-specific approval to accept and dispose of waste at the City of Meadow Landfill complies with the following: (1) applicable TCEQ regulations governing the acceptance and disposal of wastes; (2) TCEQ Permit No. 2293C for the City of Meadow Landfill; and (3) any TCEQ orders or other official directives concerning the acceptance and disposal of special waste at the facility.

- Request for Additional Information – The Special Waste Coordinator/Analyst may request additional information from the generator before rendering a decision. This may include additional analytical data, process descriptions, MSDS, or other applicable information. After review of the SWP Sheet is completed, the Special Waste Coordinator/Analyst will complete the appropriate section of the SWP Sheet, and copies of the approval will be provided to the generator.

- Executive Director Approval – The facility may receive additional types of waste pursuant to waste-specific and/or site-specific approvals issued by the Executive Director in response to requests by generators under Title 30 TAC §330.171(b)(2) or as otherwise authorized by the Executive Director pursuant to §§330.171 or 330.173. Authorization by the executive director of an individual special waste for disposal does not oblige the operator to accept the special waste for disposal at the landfill in accordance with 30 TAC §330.171(b)(5).

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MAJOR PERMIT AMENDMENT APPLICATION

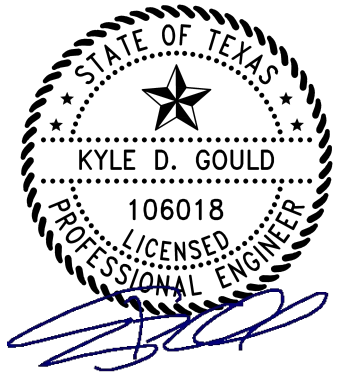
PART IV – SITE OPERATING PLAN
APPENDIX IVD
LIQUID WASTE BULKING FACILITY
OPERATING PLAN

Prepared for

Meadow Landfill, LLC

August 2024
Revised February 2025

Revised July 2025



07/16/2025

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WCG Project No. 0120-809-11-06

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3 WASTE ACCEPTANCE AND ANALYSIS (TITLE 30 TAC §330.203 AND §330.205)

3.1 Properties and Characteristics of Waste (§330.203(a))

Typical liquid waste streams that will be accepted at the facility include, but are not limited to, sludges; septic tank pumpings (septic wastes); grease and grit trap wastes; Class 2 and 3 nonhazardous industrial wastes; Railroad Commission waste; wastes that are not classified as bulk liquids but do not pass the paint filter test; and other nonhazardous bulk liquids. These liquids will be transported to the facility by private or public haulers in vacuum trucks, tank trucks, and sealed containers. The liquids will originate from restaurants and food processing plants, car and truck washes, oil and gas related industrial operations, and other commercial and industrial facilities. Estimated volumes, processing and storage times for the above wastes are provided in the following table.

Waste Type	Daily Vol. (Gal)[1,2]	Monthly Vol. (Gal)[1,2]	Ave. Processing Time (Hrs)	Max. Storage Time (Hrs)
Sludges	6,667	200k	24	168
Septic Waste	13,333	400k	24	72
Grease and Grit Trap Waste	10,000	300k	24	72
Class 2/3 Non-Haz Waste	10,000	300k	24	168
Railroad Commission Waste	16,667	500k	24	168
Other Liquid Wastes	16,667	500k	24	168

[1] Daily and Monthly volumes are estimates only and subject to change.
[2] The total volume shown in the table does not imply or impose limits of individual waste or total waste volumes.

As discussed in Section 4.20 of Part IV – SOP, special waste and industrial waste will be pre-characterized prior to acceptance of the waste material following the guidelines in Part IV – SOP, Section 4.20 and the WAP included in Appendix IVA.

As required by the SOP and WAP included in Appendix IVA, incoming liquid waste will be documented on a Special Waste Profile (SWP) Sheet. The pre-characterization by the generator will include analytical testing and/or process information as necessary to make the determination that the waste is nonhazardous. No waste material will be accepted at the site that is not pre-characterized or does not have the proper manifest(s). Regulated hazardous wastes that require authorization under Title 30 TAC Chapter 335 will not be accepted at the site.

General expected characteristics of the grease trap waste stream to be handled are:

If a significant work stoppage (longer than 24 hours) should occur at the facility due to a mechanical breakdown or other causes, the site will accordingly restrict the receiving of liquid waste materials. Under such circumstances, incoming liquid waste shall be diverted (rejected at the scalehouse). If the work stoppage is anticipated to last long enough to create objectionable odors, insect breeding, or harborage of vectors, steps shall be taken to remove the accumulated waste materials from the liquid waste bulking facility to an approved permitted offsite disposal facility.

8.11 Sanitation (§330.243)

When in use, the solidification basins will be washed down on a weekly basis at the completion of processing. During times when the facility is operating on a continuous basis, the liquid waste bulking area will be washed down at least two times per week. Wash water will drain to the mixing basin and may be solidified or removed from the mixing basins and transferred via TCEQ-registered trucks to a permitted wastewater treatment plant or a registered or permitted facility capable of handling liquid waste. The wash water will be removed or solidified on the same day it is generated.

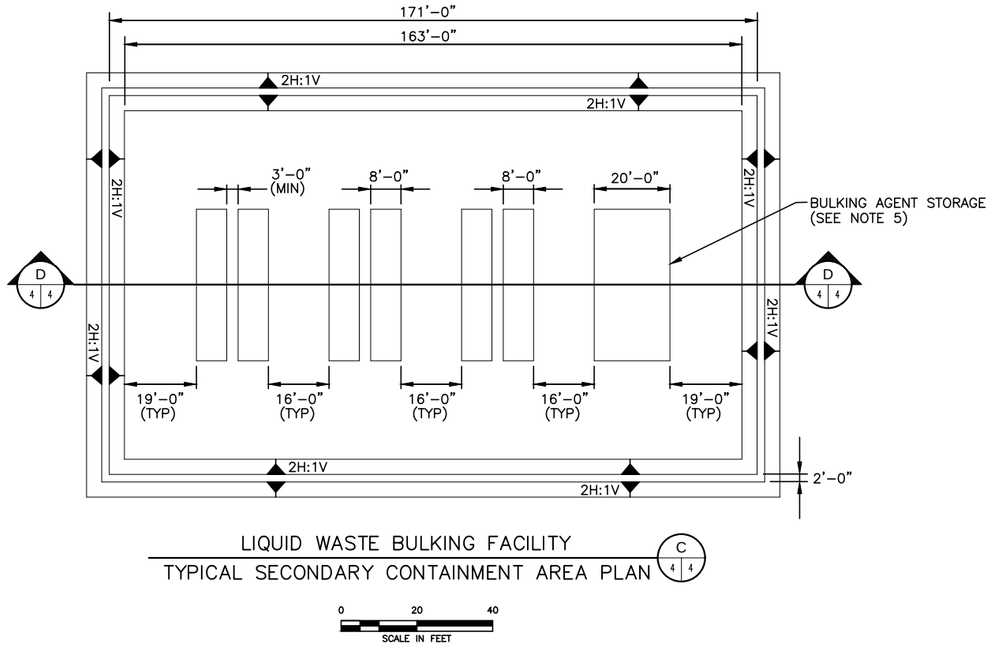
8.12 Ventilation and Air Pollution Control (§330.245)

No significant air pollution emissions are expected to result from the operation of the facility. Any emissions must not cause or contribute to air pollution as defined in the Texas Clean Air Act. The liquid waste bulking facility is covered under the City of Meadow Landfill Standard Air Permit for the site.

The operator will prevent nuisance odors from leaving the boundary of the facility. If nuisance odors are found to be passing the facility boundary, the site will immediately take action to abate the nuisance. Odors are controlled by large buffer areas to the facility from the permit boundary and solidification basin lids which will limit the liquid waste exposure to the environment. Per Section 5.2 of this appendix, the solidification basins will be covered while not in use with a portable synthetic daily cover, a fitted, rigid cover, or equivalent to prevent nuisance odors. Options to abate odors may include, but are not limited to, systematically removing waste until the odor is eliminated or the use of appropriate mister equipment. Abatement equipment will be cleaned and maintained per manufacturer recommendations so that the equipment efficiently can be adequately maintained. In addition, site personnel may also develop a plan to identify specific waste streams that are causing the odor. These waste streams will be processed under an accelerated schedule (i.e., the odor causing waste will be prioritized for processing) to prevent odors.

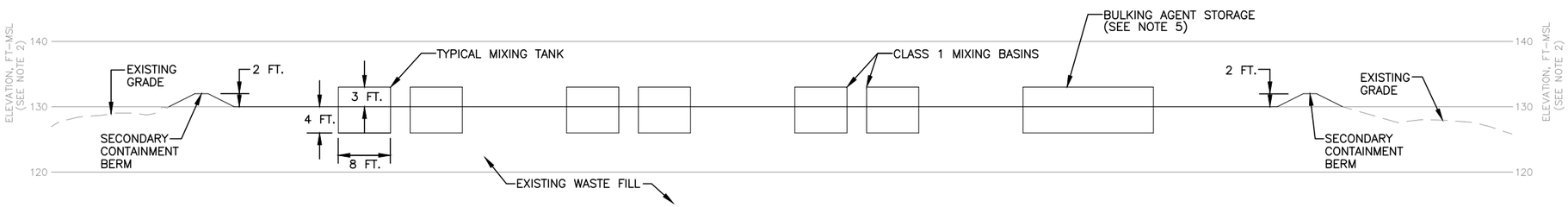
8.13 Health and Safety (§330.247)

Facility personnel will be trained in appropriate sections of the facility's health and safety plan in accordance with the procedures outlined in Section 2 of this plan and as set forth in Section 2 of the SOP.



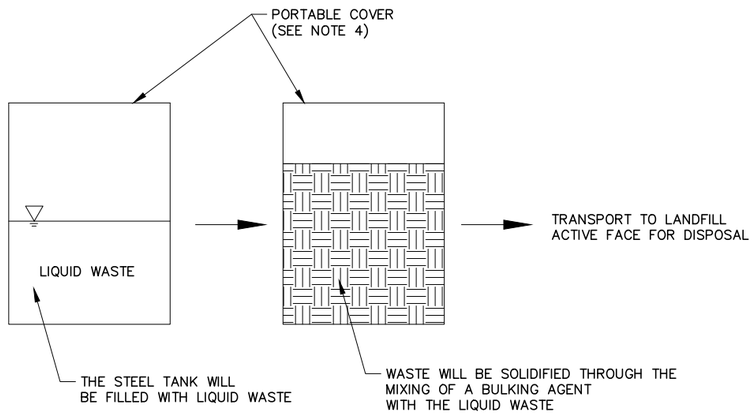
LIQUID WASTE BULKING FACILITY
TYPICAL SECONDARY CONTAINMENT AREA PLAN (C 4 4)

0 20 40
SCALE IN FEET



LIQUID WASTE BULKING FACILITY
TYPICAL SECONDARY CONTAINMENT AREA SECTION (D 4 4)

0 10 20
SCALE IN FEET



FLOW DIAGRAM

SECONDARY CONTAINMENT VOLUME CALCULATIONS FOR MIXING TANK

LIQUID WASTE BULKING FACILITY AREA SECONDARY CONTAINMENT WILL PROVIDE STORAGE TO CONTAIN EITHER THE VOLUME OF THE LARGEST TANK (16,755 GALLONS) OR THE 25–YEAR, 24 HOUR STORM EVENT (7.88 INCHES), WHICHEVER IS LARGER.

VOLUME OF LARGEST TANK = $16{,}755\ \text{gal} \times \frac{1\ \text{ft}^3}{7.481\ \text{gal}} = 2240\ \text{ft}^3$

VOLUME OF 25–YEAR 24 HR STORM = 7.88 INCHES x STORAGE AREA
= (7.88"/12") x (100 ft x 166 ft)
= $10{,}900\ \text{ft}^3$

PROVIDE STORAGE FOR $10{,}900\ \text{ft}^3$. VOLUME PROVIDED BY 1 FOOT OF THE CONTAINMENT BERM = 1 ft x 100 ft x 166 ft = $16{,}600\ \text{ft}^3$

VOLUME PROVIDED ($16{,}600\ \text{ft}^3$) > VOLUME REQUIRED ($10{,}900\ \text{ft}^3$)

THE VOLUME PROVIDED BY THE 2 FT. BERM IS GREATER THAN THE VOLUME OF TANK AND THE 25–YR, 24 HR STORM EVENT.

THE BERM PROVIDES FOR ONE FOOT OF FREEBOARD.

NOTES:

1. ALL SIZES AND DIMENSIONS ARE APPROXIMATE. THE SOLIDIFICATION AREA WILL BE NO LARGER THAN 130 FEET BY 130 FEET. STEEL BASINS WILL BE CONSTRUCTED OF 12 GAUGE STEEL (MINIMUM).
2. ELEVATIONS ARE SHOWN FOR SCALE PURPOSES ONLY, ACTUAL ELEVATIONS MAY VARY.
3. BULKING AGENT MATERIAL WILL BE STORED WITHIN THE SECONDARY CONTAINMENT BERM.
4. THE BASINS OR TANKS WILL BE COVERED WHEN NOT IN USE WITH A PORTABLE SYNTHETIC DAILY COVER OR A FITTED, RIGID COVER TO EXCLUDE RAINFALL FROM FROM THE BASIN AND CONTROL ODOR AND VECTORS.
5. STORAGE MAY CONSIST OF A SILO AND/OR CONCRETE BUNKERS THAT MINIMIZE THE STORED BULKING AGENTS EXPOSURE TO WIND. TYPICAL LOCATION IS SHOWN. IN ADDITION, BULKING AGENTS MAY ALSO BE STORED IN SOLIDIFICATION BASINS THAT ARE NOT BEING USED.

STATE OF TEXAS
KYLE D. GOULD
106018
LICENSED PROFESSIONAL ENGINEER
07/16/2025

☐ DRAFT
☒ FOR INFORMATION PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 08/2024
FILE: 0120–809–11
CAD: 4–TANK SECTIONS.DWG
DRAWN BY: SRF
DESIGN BY: JPI
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F–3727

PREPARED FOR
MEADOW LANDFILL, LLC

REVISIONS		
NO.	DATE	DESCRIPTION
1	02/2025	1st TCEQ COMMENT RESPONSE
2	07/2025	2nd TCEQ COMMENT RESPONSE

OPTION B
LIQUID WASTE BULKING FACILITY PLAN

CITY OF MEADOW LANDFILL
TERRY COUNTY, TEXAS

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DRAWING 4